INDIAN
KNOWLEDGE SYSTEM
(BHARTIYA GYAN PARAMPARA)

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INDIAN KNOWLEDGE SYSTEM (BHARTIYA GYAN PARAMPARA)

[As per the New UGC Syllabus of NEP 2023-24]

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PREFACE

The New Education Policy (NEP) 2020 laid emphasis on study of Indian Knowledge System. In compliance of this policy, the University Grant Commission set up a core Group named Indian Knowledge System (IKS) cell. It invited suggestions from experts on live, and after studying the response, it came out with a syllabus BCH: CE – 1.6 (see Appendix to Preface).

Shri Govind Guru University's Ved Vyas Chair Centre accepted this challenge to carry out Research Project No. 6 on Indian Knowledge System (IKS). The present book is an outcome of this research.

We are thankful to the university authorities, administration and Ved Vyas Chair Advisory Committee Members for their wholehearted cooperation extended for speedy completion of this research project. We are further thankful to Himalaya Publishing House Pvt. Ltd., Mumbai for their advance commitment to publish this book.

We are sure that this book will be welcomed by the faculty members and students. We will welcome their constructive suggestions for further improvement of this book.

Authors

SYLLABUS

- **Objective:** The course aims to familiarize the students with astonishing breadth and depth of the Indian scientific and knowledge tradition.
- **Learning Outcomes:** After completion of the course, learners will be able to:
  1. apportion the experience of Gurukul System of Education culture in India
  2. explain the concept of oneness (Ektama Bhav)
  3. use meditation to Panchkoshas and Chakras for enhancing productivity
  4. apply the management principles from the epics and compare with the policies and schemes of Government of India
- **Course Contents**

Units	Unit-wise Weightage of Marks (in %)	C&K*	A&A**
Unit 1 : Bhartiya Gyan Parampara (Indian Knowledge System) – An Overview	25	✓	✓
Unit 2 : Knowledge: Framework and Classification	25	✓	✓
Unit 3 : Health, Wellness and Psychology	25	✓	✓
Unit 4 : Governance and Public Administration	25	✓	✓

* C&K – Comprehension & Knowledge

** A&A – Analysis & Application

- **Unit 1 : Bhartiya Gyan Parampara (Indian Knowledge System) – An Overview**

  Importance of Ancient Knowledge; Defining Indian Knowledge System; The Indian Knowledge System Corpus – A Classification Framework; Some Unique Aspects of Indian Knowledge System: Nuances of an Oral Tradition.

- **Unit 2 : Knowledge: Framework and Classification**

  Tarka: The Indian Art of Debate – The Knowledge Triangle; *Prameya* – A *Vaishesikan* Approach to Physical Reality – *Dravyas*, Attributes and Action; *Vaishesikan* Worldview of 'Existence'; *Pramana*; *Samasya*; Framework for Establishing Valid Knowledge – Deductive/Inductive Logic Framework; Potential Fallacies in the Reasoning Process; Established Tenets in a Field of Study.

- **Unit 3 : Health, Wellness and Psychology**

  Impact of Yoga Way of Life on Emotional Intelligence of Managers; Ayurveda – Definition of Health; *Tri-doshas* – Relationship to Health; The Body-Mind-Intellect Consciousness Complex; Consciousness – The True Nature of an Individual; Five-layered Consciousness of an Individual (*Panchkoshas*); Chakra System (Energy Centres).

- **Unit 4 : Governance and Public Administration**

  Ramayana on Great Attributes, Dos and Don'ts of a King; Arthasastra – Governance and Administration; Relevance of Arthasastra; Kautilyan State; *Viduraniti* – Advice to a King; The *Amatya*; Settlements and Land Use (*Janapada*), Fortified Capital City (*Durga*), Treasury and State Economy (*Kosa*), Law and Order and Security (*Danda*), Foreign Policy and Allies (*Mitra*); Public Administration – Perspectives from the Epics.

- **Practical Exercises**

  1. Visit a *Gurukul*/*Ashram* and have own experience *(anubhooti)* of Indian ancient knowledge system.
  2. *Muktchintan* (brainstorming) on the topic 'Life Worldview of Existence'.
  3. Practice of meditation on *Panchkoshas* and *Chakras*.
  4. Muktchintan (brainstorming) on the perspectives from the epics and the real-life scenario of their applicability in the policies and schemes of the Government of India like Foreign Policy, Defence Policy, Innovation and Startup Policy, Global Initiatives like One Sun One World One Grid: India's Initiative, Vaccine Diplomacy and International Yoga Day.

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Unit 1 : Bhartiya Gyan Parampara (Indian Knowledge System) – An Overview

Chapter 1

INTRODUCTION

Learning Outcomes

1. To know about Knowledge System and Knowledge Base Concepts
2. To know about various Knowledge Systems – Traditional (TKS) and Modern (MKS)
3. To analyze and apply TKS and MKS jointly – Multiple Evidence Based (MEB) Approach
4. To know meaning of Indian Knowledge System (IKS)
5. To understand importance of study of IKS
6. To apply IKS in practical life

Structure

1.1 Knowledge System Defined
1.2 Various Knowledge Systems
1.3 Defining Indian Knowledge System (IKS)
1.4 Importance of Study of IKS
1.5 Summary
1.6 Keywords
1.7 Expected Learning Outcomes

1.8 Self-test Questions
1.9 Appendices
1.10 References and Further Readings

1.1 KNOWLEDGE SYSTEM DEFINED

A knowledge system may be defined as "A program for extending and/or questioning a knowledge base." It may be called as a knowledge-based system.

Acknowledge base may be defined as "A collection of knowledge (concepts, constructs, principles, theories and models) expressed using some formal knowledge representation language." It is a conceptually constructed body of ideas, observations and methods for comprehending through understanding or intuition, expression or communication.

1.2 VARIOUS KNOWLEDGE SYSTEMS

There are two main types of knowledge system:

1. Local, indigenous or traditional knowledge system (TKS)
2. Modern knowledge system (MKS).

UNESCO runs a programme on local and indigenous knowledge system (LINKS). Local knowledge system and indigenous knowledge system may also be called Traditional Knowledge System (TKS).

"Traditional knowledge or local knowledge is a record of human achievement in comprehending the complexities of life and survival in often unfriendly environment. It may be technical, social, organizational, or cultural obtained as part of the great human experiment of survival and development." – **UNO**

Laura Nader explains the purpose of studying Traditional Knowledge System (TKS) in the following words:

"The purpose of studying Traditional Knowledge System (TKS) is to open people's minds to other ways of looking and questioning to change knowledge, attitude to reframe the organization of science – to formulate a way to thinking globally about traditions." – **Laura Nader**

Traditional knowledge (TK) or local knowledge (LK), or indigenous knowledge (IK) refers to knowledge systems embedded in cultural traditions of regional, indigenous or tribal communities. UNO and World Intellectual Property Organization (WIPO) recognize traditional knowledge and traditional cultural expression (TCE) as two types of indigenous knowledge. For example, Jugaad system and Folklore in India.

Modern knowledge system like modern science, modern technology and modern management date to Newton's time. But Traditional Knowledge System date more than two million years. IKS travelled to faraway foreign lands through migration, travels and global trade. This has been proved by researches.

Neither all TKS is outdated and scrap nor all modern Science and Technology is gold without any side-effects and defects. Study of TKS will reveal roots of even modern science and several claims of modern scientists to be reviewed in the light of ancient contributions. Modern,

without ancient roots, will not be sustainable. Both knowledge systems are to be harmonized. Both should not be treated or rivals only. Both knowledge systems are to be connected. Such efforts recently made may be cited here.

Case of a Leading Oncologist

Case of Dr. C.P. Mathew

Dr. C.P. Mathew was the first Oncology Professor in Kerala. He became Head of the Department of Oncology at Kottayam Medical College. Later on, he became the Principal of that College. After his retirement also, his services were in great demand. He served as Visiting Professor at Universities in over 50 countries.

At the age of 60, he met a Siddha Guru on the street. He decided to unlearn allopathy cancer so that he could save tens of thousands of cancer patients from death due to cancer using Siddha medicine learnt from the tribal Vidya Brahmashree Suryan Subrahmanian Bhattathirippad. He successfully treated many cancer patients rejected by the Mayo Clinic, USA.

He became a student of *Veda*s. He received *Janeu* from Suryakaladi Mana and spent the rest of life as Sanatana Dharma Acharya. He passed away in 2021 at the age of 92.

No leading media of communist Kerala reported his notable contribution. Big US corporates in allopathy cancer drugs and radiation plants stopped documentation of Dr. Mathew's success in Traditional Tribal Medicine application in cancer treatment. An opportunity to get it patented was missed in India due to apathy of communist and congress leaders in Kerala who were sworn opponents of IKS/TKS.

Local and Indigenous or Traditional Knowledge refers to the understandings, skills and philosophies developed by scientists with long history of interaction with their natural surroundings. Local run their routine life on the basis of TKS or IKS based decisions. India is one such country with rich treasure of cultural heritage of TKS.

It is gratifying to note that the UNO has taken several significant steps for codification and IPR protection of TKS. The Indian Government in NEP 2020 has laid special emphasis on study of TKS/IKS. However, India's *rishi-munis* worked for human well-being only. They never thought about IPR and royalty income. But Indian Government has to ensure that India's IPR is protected for her TKS/IKS and foreign wealth hungry people are not allowed to lay false IPR claim on India's TKS/IKS. It is a big challenge for Indian researchers to codify TKS/IKS contributions with documentary and other relevant evidence.

1.3 DEFINING INDIAN KNOWLEDGE SYSTEM (IKS)

Indian Knowledge System (IKS) is rooted in *Vedas*. The literary meaning of *Veda* is knowledge or to know. IKS has two major divisions – (1) *Shruti Parampara* (Listening). This is *Veda* or *Shruti Parampara* – reciting/chanting and listening. (2) *Smriti, Purana, Itihasa Parampara*. *Itihasa* or history is contained in two epics – Ramayana and Mahabharata. Both, *Shruti* and *Smriti* are integral part of IKS. The whole IKS is written in Sanskrit, mostly in poetry form, excepting some part of *Vedas* in Sanskrit prose form.

"IKS consists of 14 *Vidyas* – 4 *Vedas*, 6 *Vedangas*, 6 *Ved Darshanas – Nyaya*, *Mimansa*, *Yoga*, *Vaisheshika* and *Vedanta Puranas* and Dharmashastras (*Smritis*). Some experts add 4 *Upa Vedas* to make IKS *Vidyas* number 18."

IKS is further subdivided into two branches of *Vidyas – Para Vidya* and *Apara Vidya*. The former deals with knowledge related to soul and God/Brahman, metaphysical or *Adhyatmik* or spiritual matters. The whole world accepts India as *Vishwaguru* in *Para Vidya.* Several foreigners visit India in search of this unique knowledge not found in any other knowledge system of world. The latter deals with worldly subjects like agriculture, science, technology, management, administration, governance, diplomacy, war and defence, architecture, town planning, social sciences performing arts, humanities and language.

It is to be noted carefully that without *Para Vidya*, mere knowledge of *Apara Vidya* is not considered adequate in IKS. *Apara* is physical body and *Para* is its soul. Without soul, body of *Apara Vidya* is dead. It cannot serve purpose of well-being of humanity. Top purpose of birth in human life – '*atmano mokshartham jagat hitaya cha*' can be obtained by *Para Vidya* and *Apara Vidya* combination only.

1.4 IMPORTANCE OF STUDY OF IKS

Study of IKS assumes great importance on account of the following reasons:

1. It will encourage the creation of new ideas and innovation suitable for Indian needs.
2. It will decolonize Indian minds cultured by Macaulay, leftists and pseudo-secularists education system which has made our youth to believe that India was a barbaric pastoral society with no knowledge base. It is only British colonizers who gave us knowledge, culture, civilization and language. It will give India its own identity giving shape to her culture.
3. With knowledge of IKS, our youth will be proud to be an Indian. He will be proud to be an Indian. He will feel happy when he will come across the words of praise showered by eminent western and other scholars on IKS contribution to world heritage. (Please see Appendix 1 and 2 at the end of this chapter.)
4. It will help create national wealth through IPR based on IKS. For example, Ayurveda, Music, Yoga, Astrology and Herbal medicines can be patented and royalty may be earned by export of these key IKS knowledge domains with great export potential.
5. IKS will sharpen our skills like reasoning, logic, research/investigation for arriving at truth and problem solving and dispute resolution with the help of *Nyaya Darshana*.
6. IKS study will provide a strong foundation in Indian language (Sanskrit) and culture (Sanskrit), philosophy and spirituality.
7. Yoga will make our mind free from 6 vices and stress. It will give good physical, mental and spiritual health and may give self-realization also.
8. IKS study has great potential for creation of employment. For example, millions of Yoga and Ayurveda experts may be developed and exported to developed world. Similar potential lies in Vedic Mantra chanting, performance of yajna, applied Sanskrit teaching, *Vedanta* and *Kathavachaka*, *Smriti Samskar* performing, etc.
9. Although Gurukul system of education may not be recreated physically, yet its value system can be included in modern education system to make it socially more relevant. These are, celibacy, equal access, equal education for all discipline, physical labour, simple living, self-respect, respect of all beings, self-reliance and autonomy.

The supporters of IKS must avoid making unverified claims like it is panacea for all contemporary world problems. They must provide scientific proofs to support claims like Baba Ramdev of Patanjali Yoga and Ayurveda. AIMS, New Delhi is also conducting experiments on effect of Vedic Mantra chanting.

1.5 SUMMARY

India has rich cultural heritage in knowledge – *gyan*, *vigyan* and *para-apara vidya*. Its knowledge base in very strong. Now, UNO itself has taken up combinations of modern knowledge system with traditional knowledge system for sustainable development. India's New Education Policy, 2020 also emphasizes study of IKS with modern science and new technology. IKS study offers large number of benefits. Let us scientifically prove IKS claims.

1.6 KEYWORDS

Knowledge System, Knowledge Base, Traditional and Modern Knowledge System, Multiple Evidence Based (MEB) Studies, Indian Knowledge System (IKS), *Para Vidya*, *Apara Vidya*, *Shruti*, *Smriti*, *Puranas*, Epics (*Itihasa*).

1.7 EXPECTED LEARNING OUTCOMES

Comprehension and knowledge of key concepts and their analysis and application. Proud to be Indian. Great employment potential. Innovation by combined IKS and MKS research with MEB approach.

1.8 SELF-TEST QUESTIONS

1. Define concepts of a knowledge of a knowledge system and knowledge base.
2. What are various knowledge systems? What is relationship between TKS and MKS?
3. Define Indian knowledge system.
4. Explain importance of study of India's (Ancient) Knowledge System. Why was it ignored? Why has it assumed new importance recently?
5. Analyze and apply any one component of IKS from the following list:
   (a) Yoga
   (b) *Vedanta*
   (c) *Nyaya*
   (d) *Mimansa*
   (e) *Purana* and *Itihasa*
6. What is contemporary application of Gurukul System of education?

1.9 APPENDICES

Appendix – 1

Views of eminent foreign experts about contributions of IKS to world knowledge.

Students may undertake Google search on this topic and write views of eminent experts on IKS, i.e., *Shruti-Smritis* of India.

Appendix – 2

Is Ancient India overrated? "No. It is grossly underrated." A Chinese origin ex-Professor from university of Toronto, Canada says. **Author: Pak L. Huide**

People here know something about China but almost nothing about India. Indian themselves are to be blamed for this. They look down upon their ancient heritage and consider western ideas and ideals as superior.

People don't know about the following outstanding achievements of ancient India in metallurgy and architecture – Great temples of South India. People give credit for discovery that the earth is spherical to the Greek Philosopher Aristotle. Whereas this credit rightly belongs to Maharishi Yajnavalkya who discovered this in 8^{th}-9^{th} century BCE and recorded it in his book '*Shapatta Brahmana*'. He also wrote that the earth and all planets move around Sun. He calculated period of one year as 365.24625 days. Only 6 minutes longer than current 365.24220.

Kung Fu, a prince of the Pallava dynasty from Kanchipuram, Tamil Nadu had founded Martial Art in China. Credit is wrongly given to China, not India.

Indians of Indus Valley Civilization (IVC) were first to invent a flush toilet. They were also first to make weights and measures and foot rules, first to invent buttons, and first to weave cotton cloth? (Excavation at Harappa, Mohenjodaro and Lothal prove this.)

Patanjali Maharishi gave Yoga to the world. Now, the whole world practice it to keep people fit and fine.

Aryabhatta, Brahmagupta and Bhaskaracharya were three noted Mathematicians from ancient India who invented concepts of zero and infinity. Brahmagupta was first to coin its symbol. Bhaskaracharya was first to use it in Algebra. Zero was first inscribed in Chaturbhuj Temple in Gwalior Fort.

Acharya Kanad was first to invent concepts of *Anu* (Atom) and *Parmanu* (Nuclear). He was Acharya of Vaisheshika Darshana of *Veda*, a pioneering work on science of chemistry.

Sage Shusrat was the first Surgeon and Charaka was the great physician from ancient India. They composed own *Samhita.*

The Chera dynasty of Tamil Nadu was first to invent production of finest steel, now known as Damascus steel.

Kailash temple and Dwarka city were architectural marvels from ancient India.

The grandest and largest temple in India – Brihadeshwara – was also a great feat of architecture.

The Khajurao, the marvel where hardest rocks were given language of beauty.

Breathtaking architecture of the Sun Temple, Konark. Here, the language of stone excels the language of man.

Can you still say that ancient India was overrated?

Ancient India was a hub of culture, science and technology and the absolute capital of spirituality. But it is grossly underrated.

Awake and arise Indians and rest not till you are properly rated by the world for your ancestor's great contribution to world heritage. (Added by the author).

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Chapter 2

THE INDIAN KNOWLEDGE SYSTEM CORPUS – A CLASSIFICATION FRAMEWORK

Learning Outcomes

1. To learn about *Vedas* or *Shrutis*
2. To know about classifications of Vedas, four Vedas, their *Rishis* and role or function of each Veda in *Yajna*
3. To know about *Upa Veda* of each Veda – their *Rishis* and their application
4. To learn about three parts of Veda – (1) *Samhita*, (2) *Brahmana* and (3) *Aranyaka*/*Vedanta* or Upanishadas
5. To learn about *Vedangas*, their *Rishis* and their application
6. To learn about *Veda Darshana* (*Veda* Philosophies)
7. To know about *Veda Sutras* and their *Rishis* with their applications
8. To know about *Smritis*, their *Rishis* and their applications
9. To know about *Puranas*, their *Rishis* and their applications
10. To learn about history contained in two epics – Ramayana and Mahabharata
11. To know about Integrated IKS

Structure

2.1 *Veda*s
2.2 *Smritis*
2.3 *Puranas*
2.4 History – Epics
2.5 Some Unique Aspects of Indian Knowledge System
2.6 Expected Learning Outcomes

2.7 Summary
2.8 Keywords
2.9 Self-test Questions
2.10 References and Further Readings

2.1 *VEDAS*

Vedas means to learn or know. At the beginning of day of *Brahma*, the universe is created. *Vedas* are breath of *Brahman*, *Purushottama* or *Narayana*. These are recovered from deep sea by Hayagriva incarnation of *Brahman*. *Veda* mantras exist in sky in the form of *shabda* sounds. Brahma is born from lotus emanated from naval of *Brahman* or *Narayana* resting on *Shesha* bed in Ksheersagar. Brahma is authorized by *Brahman* to speak/chant *Veda* by his four mouths by his Shakti Saraswati.

Mouth Direction	***Veda***	***Upa Veda***
East	Rigveda	Ayurveda
South	Yajurveda	Dhanurveda
West	Samveda	Gandharvaveda
North	Atharvaveda	Sthapatyaveda

Veda was applied to perform *yajna*. Specific role and function assigned to expert of each *Veda* as shown in the following table:

***Veda* Expert**	**Role in *Yajna***	**Functions**	**Remarks**
Rigveda	Hota	Shashtra	Sukta recitation
Yajurveda	Adhvaryu	Jiya	Physical space equipments for *yajna*
Samveda	Udgata	Stutisam	Music, intonation
Atharvaveda	Brahma	Control and supervision	Correction of mistakes, if any, by the three

Main function of *yajna* was performed with the help of experts of Rigveda, Yajurveda and Samveda. Therefore, these three are considered main and called '*Vedatrayi*'. Atharvaveda is considered of auxiliary or support service only. Three *Vedas* can be studied after *Yajnopavit*. For study of Atharvaveda, another *Yajnopavit Samskar* is required.

Each *Veda* has three *Kanda* or Division:

1. *Samhita*
2. *Brahmana*
3. *Aranyaka* or *Upanishada* or *Vedanta*

Vedas have six *Vedanga*s or Limbs. These are: (1) *Shiksha* (Methods of Study), (2) *Kalpa* (Method of Rituals), (3) *Vyakrana* (Grammar), (4) *Nirukta* (Etymology), (5) *Chanda* (Metres and Prosody) and (6) *Jyotisha* (Astronomy and Astrology).

Concept of *Vedpurusha*

Suppose *Veda* is a human body or *Purusha*. *Shiksha* is his nose, *Vyakrana* (Grammar) is his mouth, *Kalpa* is his hand, *Nirukta* is his ears, *Chanda* is his foot and *Jyotisha* is his eyes. *Vedpurusha* is incomplete and incapable of performing *yajna* if any of the six *Vedangas* (limbs) is missing or weak. For a healthy and active *Vedpurusha* development, it is essential that Veda education is given *sangopanga* to students by *Veda* expert *Gurus* in each *Vedanga*.

'*Sangopanga*' means *Vedas* learnt with six *angas* or limbs.

Vedas have six *darshanas* (Philosophies). These are: (1) *Nyaya*, (2) *Vaisheshika*, (3) *Sankhya*, (4) Yoga, (5) *Purvamimansa – Yajna karma* (6) *Uttarmimansa* or *gyan*, or *Vedanta*, or *Upanishada*, or *Aranyaka*. All have common goal to arrive at *gyana* truth or Brahman.

Sutras are part of *Vedas*. A *sutra* is an exceedingly terse aphorism. Its literal meaning is thread. It is easy to understand, communicate orally and remember/recall. *Sutras* contain the distilled essence of profound and abstract teaching of *Vedas*. *Sutras* are explained by teachers through their commentaries. Important *Veda sutras* are *Brahma sutra* by Ved Vyasa, *Yog sutra* by Patanjali and *Grihya sutra*, *Shrauta sutra*, *Shulva sutra* and *Dharma sutra* by Jaimini.

Since *Vedas* have come from breath of unmanifested form of *Brahma* and not created by any human being, these are called '*Apauresheya*'. *Brahman* is immortal so are *Vedas*, his breath, exist for even in *shabda* form in sky. Even holocaust or pralaya does not destroy *Brahman*. So, his breath (*Vedas*) is also not destroyed even in *pralaya*.

Vedas are immortal and '*Apauresheya*'. But Vedic *rishis* could see *Veda mantr*a in meditation with a pure mind and intellect. Their divine vision could see *Veda mantras* and divine ears could listen sound of *Veda mantra*s. Our *Veda rishis* are not creators of *Vedas*. They are *mantra darshtas* only. They have authored some part of Vedic knowledge. They are considered authority on that part. Now, we remember their names with their contribution.

In *Dwapar Yuga* of the present *chaturyugi*, Ved Vyasa (called as Shri Krishna Devpayana Vyasa), who was an incarnation of Bhagwan Vishnu, through that man of *Kaliyuga* will have limitation of time and capacity to learn one integrated *Veda*. Therefore, he divided one *Veda* into four parts and appointed his disciples to be Acharya of each *Veda* as shown below:

Sr. No.	*Veda*	Name of Disciple Rishi
1	Rigveda	Pail Rishi
2	Yajurveda	Vaishamparyan Rishi
3	Samveda	Jaimini Rishi
4	Atharvaveda	Sumanta Rishi

These rishis appointed own disciples to further divide each *Veda* in different branches. Every branch of a *Veda* has its own *Samhita*, *Brahmana* and *Aranyaka*. Each branch of a *Veda* has its own unique way of *mantra* chanting. Now, we have one branch of Rigveda, two of Yajurveda and three of Samveda only.

Veda's each branch of Philosophy (*Darshana*) has one *rishi* as *Acharya* or authority. It is shown in the following table:

Sr. No.	Name of Philosophy	Name of Rishi (Authority)	Main Work
1	Nyaya	Gautam Rishi	Gautam Nyaya Sutras
2	Vaisheshika	Kanad Rishi	Vaisheshika Sutras
3	Sankhya	Kapila Muni	Sankhya Sutras
4	Yoga	Patanjali Rishi	Patanjali Yoga Sutras
5	Purvamimansa (Karamakanda)	Jaimini Rishi	Mimansa Sutras
6.	Vedanta (Uttarmimansa) Darshana six branches:		
	(i) Advait Darshana	Adi Guru Shankaracharya	
	(ii) Dvait Darshana	Madhvacharya Jagadguru	
	(iii) Vishishta Dwait Darshana	Jagadguru Ramanujacharya	
	(iv) Shuddha Dwait Darshana	Jagadguru Vallabhacharya	
	(v) Dvait-Advait Darshana	Jagadguru Nimbakacharya	
	(vi) Achinta Bheda-Abheda	Chaitanya Mahaprabhu	

Regarding *Vedanta Darshana*, the concept of *Prasthanatrayi* is significant. *Prasthanatrayi* means study and commentary on *Brahma sutra*, *Bhagwadgita* and *Upanishada*. This must have been done by a person who wants to become a *Jagadguru* of any branch of *Vedanta Darshana*.

The following table lists *Vedanga* authority *rishis*:

Sr. No.	Vedanga	Acharya Rishi	Work
1	Shiksha	Natraj Shiva	Sound of Damru
2	Vyakrana (Grammar)	Panini Rishi	Panini Vyakarna
3	Jyotisha	Parashara Rishi	Vrahad Parashari
		Guru Shukracharya	Bhrigu Samhita
		Garga Rishi	Garga Samhita
		Surya Siddhanta	Lord Sun
4	Nirukta	Dhanvantari	
5	Kalpa	Jaimini Rishi	
6	Chanda	Pingala Rishi	

Now, we describe briefly contents of each *Veda*:

1. ***Samhita*:** It is collection of *Suktas*, hymns, riches used at *yajna* and offering of libations in fire, the *mantra* on correct recital of which the efficacy of the rite depends. The *Samhita* part of Rigveda contains 1017 *Suktas* arranged in 10 *Mandalas*. *Suktas* are prayers of Vedic Gods/Goddesses. These are in the end of only one supreme God called '*Brahman*', *yajnapurusha*. Rigveda is a book of *Hota*, the priest who pour offerings into

yajna fire. He has to recite loudly Richas (laudatory verses) at the time of *yajna*. The *Samhita* part of Yajurveda contains 40 chapters, consisting of 1886 *shlokas*. About half of these *shlokas* are common with Rigveda Samhita. Yajurveda has two branches:

(a) Krishna Yajurveda: It is also called *Taittiriya* branch. It has no separate *Samhita*. *Samhita* and *Brahmana* are mixed up.

(b) Shukla Yajurveda: It is also called *Vajasaneya* branch. It has separate *Samhita* which consist of the invocation and prayers offered in *yajna* materials, the altar and the brick and stakes needed for *yajna*. Details of *yajnas* are mentioned in prose form – history of *Rajasuya Yajna* and *Ashwamedha Yajna* hosted by Chakravarti Kings. In addition, domestic and other ceremonies/*samskaras* are also described in it. Duties of *Adhvargu* (conductor) in *Royal Yajnas* are explained.

The *Samhita* of Samveda consists of 15 books divided into 32 chapters, again subdivided into 460 hymns. Most of these, except 75 hymns are found in Rigveda *mantra*. The Samveda contains knowledge of music and hymns to be sung by '*Udgata*' at Somayajna. This *Samhita* comprises of four different works – *Mangeya*, *Uhgh*, *Uhayam* and *Aranyaganam*. It is the set of musical notes. It was later complied as Archika. Sayanacharya wrote his commentary on it. Figures on top of *Mantras* and *Shlokas* indicate notes of the gamut.

The *Samhita* of Atharvaveda is divided into 20 *Kandas*, again subdivided into 731 hymns. It was compiled by the *Athvarnas*, the *Angirasas* and the *Bhrigas* on earth. Hence, it is not *Apaurisheya* like Rigveda, Yajurveda and Samveda. It provided knowledge for supervision and control of *yajna* by an officer called '*Brahma*' of *yajna*. It deals with mundane worldly affairs of daily life, business, women, etc. It is of historical, economic, sociological and managerial interest but lower in status that *Vedatrayi*.

2. *Brahmana*: It contains precepts for *yajna*, reproof, praise, stories and traditions/ customs. It explains link between suktas and rites. Thus, *Brahmanas* are treatises on rituals, interspersed without ritual directions and illustrative stories, philosophical observations, profound ideas, especially in *Tandya Mahabrahmana* and *Shatpath Brahmana*.

Rigveda Brahmanas are two:

(a) *Aitareya Brahmana*: It consists of 40 chapters dealing with *Somyajna*, *Agnihotra* and *Rajyabhisheka* (coronation of a king) ceremony.

(b) *Kaushitaki Brahmana*: It is also called '*Sankhyana*'. It has 30 chapters dealing with *Somyajna*.

Yajurveda Brahmana – Krishna branch has *Taittiriya Brahmana* of 3 chapters. *Shukla* branch (*Vajasaneyi*) has *Shatpath Brahmanas* with 100 chapters.

Samveda Brahmana – There are three *Brahmanas*:

(i) *Talvakra Brahmana*,

(ii) *Panchavimsha Brahmana* (25 books), and

(iii) *Chandogya Brahman*.

***Atharvaveda Brahmana* –** It has one only *Brahmana – Gopatha Brahmana* consisting of two books.

3. ***Aranyakas/Upanishadas/Vedanta/Uttarmimansa*:** Even *Veda* ends with *Aranyakas*. There are dialogues between *Guru* and disciples or *guna* with small group of disciples/ foresters on *Para Vidyas* or *gyan* of *Brahman* and soul. These are known as *Vedanta* or *Upanishads* also. 10 are major *upanishads* with a total of 108 *Upanishadas*. The following table will help in remembering:

Name of *Veda*	Name of *Brahmana*	*Aranyaka/Upanishada*
1. Rigveda	Aitareya	Aitreya Upanishada
	Kaushitaki	Kaushitaki Upanishada with 8 major ones.
2. Yajurveda	Taittiriya	Taittiriya Upanishada, Katha Upanishada, Shvetashvatara Upanishada and 31 minor ones.
	Shatpath	Brihadaranyaka Upanishada, Ishopanishada and 7 minor ones.
3. Samveda	Talvakra	Kenopanishada
	Chandogya	Chandogya Upanishada and 14 minor ones.
4. Atharvaveda	Gopatha	Mandukya Upanishada, Mundaka Upanishada, Prashna Upanishada and 31 minor ones.

Vedas knowledge system is of two types:

1. ***Apara Vidya*:** 80% part of *Karma Kanda*, *Vedanga*, *Veda* philosophies and *Upa Vedas* deal with *yajna* performance for material benefits of this world and heaven after death for some time. But not salvation, unless it is done without any expectation of fruits.
2. ***Para Vidya*:** *Vedanta* or *Gyan Kanda*, Salvation/Self-realization/*Moksha* by *Gyan* or *Bhakti*. 10 main *Upanishadas* contain *Gyan* nectar of Vedic knowledge.

Vedas are summed up in *Gayatri Mantra*. *Gayatri* in *Pranava* or *Omkara*. *Pranava* is symbol of *Brahman*, *Veda Karta*.

2.2 *SMRITIS*

Vedas cannot protect a sinner or violator of Sanatana Dharma. These duties are of two types:

1. **General Duties –** Derived from *Vedas* like *Sama-Dama*, purity, non-violence, no envy, no attachment, no ego and no desires/contentment.
2. ***Varnashrama* Duties –** Duties of *Brahmana*, *Kshatriya*, *Vaishya* and *Shudra*. Emergency duties. Duties of celibates, households, *Vanaprasthis* and *Sanyasis*. *Rishis* have derived *Smriti* from *Vedas* and authored book name after their names like *Manusmriti*, *Yajnavalkya Smriti*, *Gautama Smriti*, Sankha-Likhita Smriti and *Parashara Smriti*. These are suitable for *Satyuga*, *Tretayuga*, *Dwaparyuga* and *Kaliyuga* respectively.

   There are 36 *Smritis*. Number varies from 20 to 36 by different authors. General duties regulate and evolve one human life. *Ashrama* duties regulate and evolve one human life

in different stages. *Varna* duties regulate and evolve human life through different births-death-rebirth cycle. *Smritis* contain customs also.

2.3 *PURANAS*

There are 18 *Puranas* and 18 *Upa Puranas*. *Vishnu Purana* was authored by Sage Parashara, father of Ved Vyasa Muni. Rest 17 *Puranas* and 18 *Upa Puranas* were compiled and edited by Ved Vyasa Muni with the help of his law caste disciple Romaharshana. *Puranas* explain abstract *Veda* concepts in a friendly manner with the help of stories, incidents, dialogues, etc. People are made alert to ethics and unethics with effective justification. Even women and *shudras* (servants/skilled artisans) can learn and practice Vedic concepts with the help of *Purana*.

Every *Purana* is devoted to a main God/Goddess and praise him/her to high level. The objective of *Purana* is not to create conflict between *Vaishnava*, *Shaiva*, *Shakta*, *Ganpatya* and *Soras*. The real objective is to strengthen faith in one God/Goddess with understanding that you can worship *Brahman* in any form of God/Goddess, part of nature – earth, water, fire, air, sky, tree, river, mountain, idol, Sun, Moon, bird, animal, reptile, etc. as per own attitude. All this worship goes to one *Brahman*.

2.4 HISTORY – EPICS

Two main epics – *Ramayana* of Maharishi Valmiki and *Mahabharata* of Sage Ved Vyasa – presents history of two major class, *Surya Vansha* and *Chandra Vansha*. Bhagwan Vishnu incarnated in both clans and played key role as Shri Rama and Shri Krishna. Vedic concepts like *Pitrodevo bhava*, *Matrudevo bhava* and *Gurudevo bhava* was put in actual life by Shri Rama. He went to forest for 14 years to obey his parents. This epic presents Shri Rama as *Dharma* personified. Common man can understand *Veda* concepts in a very loving and absorbing manner positively telling what to be done to save a family in crisis. On the other hand, *Mahabharata* epic tells us negatively what to be avoided to save a family from disastrous war? *Puranas* and history serve social purpose of IKS.

2.5 SOME UNIQUE ASPECTS OF INDIAN KNOWLEDGE SYSTEM

The following are some noteworthy points:

1. *Shruti* system of *Vedas* means Vedic knowledge is preserved and transferred from one generation to other by sound created by *mantra* – Chanting. This has saved this treasure of IKS from mischief of foreign in *Vedas* who burnt rich libraries of Nalanda University. Our *Shruti* (listening) *parampara* of *Vedas* is unique. But *Smriti*, *Purana* and *Itihasa* are *Paurisheya* authority someone.
2. *Vedas* are breath of immortal *Brahman*. *Vedas* are not created by any human being. *Rishis* are not *mantra karta* but *mantra drishta* only. This knowledge has been protected by unique ways of chanting *mantras*. *Shruti Parampara* was aided by *Guru Parampara*.
3. *Vedas* harmonize and integrate *Karma* and *Gyana*, *Para Vidya* and *Apara Vidya*, safe life, happy life with ultimate salvation. Knowledge is linked to bread (livelihood) and salvation (*Moksha*) both.

4. *Veda*, *Smriti*, *Puranas* and *Itihasa* are all components of our integrated IKS. Thus, *Vedas* are terse Boss.
5. *Smritis* and *Puranas* are friendly colleagues. Poetic epics are like sweet *bhamini* (wife). *Purana*, history be studied on 5th *Vedas*.

   There is a conflict resolution system:

   (a) If two *Vedas* give different view, then both will prevail due to regional differences.

   (b) If a *Veda* and *Smriti* views differ, then *Veda* (*Shruti*) view will prevail.

   (c) If two *Smritis* offer differing views on some *Samskara*, then both will prevail due to regional difference. Even family custom will hold valid against *Smriti* mandates. Imaginary conflict between *Purvamimansa* and *Uttarmimansa*, *Shruti* and *Smritis Purana* and *Itihasa* has no roots. All *Veda* philosophies and *Vedanta* philosophies have a common goal of self-realization.
6. IKS is pragmatic. Servants and women are exempted from several Vedic and *Smriti* rituals. The purpose of this exemption is not to exclude them or discriminate against them. But true objective is not to disturb them in performance of organizational and household duties respectively. They are assured of *Moksha* by performance of own duty with devotion. This applies to *Kshatriya* and *Vaishya Varna* also.
7. In every *Chaturyugi's Dwaparyuga*, Ved Vyas reviews and edits *Shrutis* and *Smritis* as per the needs of future people. *Puranas* and history are updated. Thus, IKS remain relevant to contemporary life and maintains its eternity. It may eclipse but not destroyed.
8. *Katha* by *Vyasa* keep *Purana* and history alive in public mind not only in India but world over. TV mobile apps, internet and websites are big modes/aids in spreading IKS worldwide.
9. Although Yoga and Ayurveda have attracted global interest, yet there is big untapped potential for soft export of IKS to become *Vishwaguru*. But this will need a notional mission to scientifically prove claims of *Ved* mantras, *yajnas*, herbal medicines, music therapy, meditation, astrology, etc. World is showing increasing interest in it. Foreigners have claimed false credit for work already done by Indian *Rishi-Munis*. IKS must claim credit for them as listed below.

False Claims of Westerners

1. **Laws of Gravitation:** West claims credit for Newton. *Surya Siddhanta* is an ancient India's Vedic treatise which describes it as, "It is force of attraction that keeps the earth from falling". India's claim to Laws of Gravitation must be accepted.
2. **Earth Revolves Round the Sun:** Up to 16th century, the Europeans believed that Sun revolves round the earth. Those who challenged it were hanged. Much before the Western Astronomers could claim that earth revolves round the Sun, ancient India's Vedic scholars Aryabhatta and Varahamihira knew it. Aryabhatta propounded Law of small follows big *(laghava-gaurava nyaya*). Disciple follows *Guru*. Small earth follows big Sun. In *Aitreya Brahmana* of Rigveda, it is clearly stated, "Sun neither rises nor sets." Nilakantha Dikshita also stated clearly in his book "Sivotkarsa-Manjari" that "*Bhumi brahmyati*" (earth revolves). India must claim credit for this ancient knowledge.

3. **Shape of the Earth:** The Europeans falsely claim credit that they were first to discover that earth is ball-shaped. In the past, they wrongly believed that earth was flat like a plate. Now, let us see Sanskrit word for Geography is 'Bhugola'. It proves that ancient Vedic *rishis* knew that earth was ball-shaped. Theory of creation of universe given in *Purana*s use a Sanskrit word 'Brahmanda' meaning egg of *Brahma*. It indicates that earth was egg-shaped or spherical, or oval-shaped. Ancient Vedic India's claim for credit for this knowledge must be accepted.
4. **Infinity:** Bhaskaracharya, a noted Vedic scholar of Mathematics, claimed, "Any number divided by zero is equal to infinity." He gave concept of zero. He knew about infinity when he said, ""I pay obeisance to the *Paramatman* that is Infinity." He should be given due credit for giving concept of infinity.
5. **Time Zone of Different *Lokas*:** *Vedas* say that Meru is situated on northern tip of the earth. Directly opposed to it is Dhruva. There were seven seas. Later on, Meru changed. It could not remain exactly opposite to Dhruva. The earth tipped a bit. Now, instead of seven seas, only seas of salt water are visible. Seven islands became five continents. *Purana* Geography has to be read with this physical change.

   Swarga (Heaven or Paradise) is located above the North Pole. Earth is like a lemon and it is topped by Meru mountain. One can move to South only, neither East nor West. For all continents of the earth, north is Meru. Our Vedic *rishis* knew that one year on earth is equal to one day of divines in heaven – day of six months of Uttarganga and night of six months of Dakshinganga.

   South pole is for *Pitras* and hells. *Rishis* knew that one month on earth is equal to one day of *Pitras* in *Pitraloka*. *Krishna Paksha*'s 15 days is their day and *Shukla Paksha*'s 15 days is their night.

   Westerners called *Vedas* rubbish, non-sense and song of cowherds. It is difficult for them to accept ancient India's discoveries and give due credit for these to her. For understanding these three time zones, they have to accept existence of heaven and hell, *Pitraloka*, etc.

2.6 EXPECTED LEARNING OUTCOMES

Youth knows ancient India's heritage of Indian knowledge system and feels proud to be an Indian.

2.7 SUMMARY

Vedas are '*apaurusheya*', created by breath of *Brahman*. *Vedas* are 'Shruti' *Parampara*, transmitted by chanting sound of *mantras*. *Rishis* have been *mantra drashtas* only. One *Veda* was divided by Ved Vyasa in four *Vedas* with one disciple (*rishi*) for each. There are one branch of Rigveda, 2 of Yajurveda and 3 of Samveda. Each branch has some unique chanting way of *Veda mantra*. Each *Veda* and its branch have three parts – *Samhita*, *Brahmana* and *Aranyaka*. *Smriti*, *Purana* and history are studied as fifth *Veda*. There are some unique aspects of IKS.

2.8 KEYWORDS

4 *Vedas* or *Shrutis*, 4 *Upa Vedas*, Vedatrayi, 6 *Vedangas*, 6 *Veda Darshanas*, *Prasthanatrayi*, 6 *Vedanta Darshanas*, 30 *Smritis*, 18 *Puranas*, 18 *Upa Puranas*, 2 Epics or History, 5th *Veda*, *Upanishadas or Vedanta.*

2.9 SELF-TEST QUESTIONS

1. '*Vedas* are *Apaurusheya*.' Explain.
2. '*Vedas* are *Shruti Parampara*.' Explain.
3. Present classification framework of IKS.
4. Describe a few unique aspects of IKS.
5. Describe contents of *Vedas – Samhita*, *Brahmana* and *Aranyaka* or *Upanishada*.
6. How are *Shruti-Smriti* conflicts resolved?
7. In the following multiple choice questions, make any one correct option as right answer:

   (i) *Veda* knowledge was given by:
   - (a) *Brahmana*
   - (b) *Ishvara*
   - (c) *Guru Ved Vyasa*
   - (d) *Saraswati*

   (ii) *Veda* is called:
   - (a) *Apaurusheya*
   - (b) *Shruti*
   - (c) Eternal
   - (d) All of the above

   (iii) When *Veda* knowledge was given?
   - (a) *Dwaparyuga*
   - (b) *Satyuga*
   - (c) 1000 years ago
   - (d) At the beginning of day of *Brahman* (when universe was created)

   (iv) What was the purpose of *Veda* knowledge?
   - (a) Well-being of humanity
   - (b) Opposing other religions
   - (c) Only to propagate *Karma Kanda*
   - (d) None of the above

(v) How many *Vedas* are there?
   (a) 4
   (b) 6
   (c) 14
   (d) 18

(vi) How many *Veda* branches are there?
   (a) 7
   (b) 6
   (c) 1100
   (d) 4

(vii) *Vedatrayi* excludes which *Veda*?
   (a) Rigveda
   (b) Samveda
   (c) Atharvaveda
   (d) Yajurveda

(viii) How many *Upa Vedas* are there?
   (a) 4
   (b) 6
   (c) 14
   (d) None of the above

(ix) Which one of the following is *Upa Veda*?
   (a) Rigveda
   (b) Manusmriti
   (c) Ayurveda
   (d) Jyotish

(x) How many *Vedangas* are there?
   (a) 4
   (b) 6
   (c) 10
   (d) 14

(xi) Which one of the following is a *Vedanga*?
   (a) Rigveda
   (b) Ayurveda
   (c) *Vyakrana*
   (d) *Brahmana*

(xii) How many *Veda Darshanas* (philosophies) are there?

(a) 4
(b) 6
(c) 12
(d) 0

(xiii) Who is Acharya of *Nyaya Darshana*?

(a) Gautam
(b) Kanad
(c) Patanjali
(d) Vyas

(xiv) Kanad is Acharya of:

(a) *Vedas*
(b) *Vedanga*
(c) *Vaisheshik Darshana*
(d) *Smriti*

(xv) How many *Upanishadas* are?

(a) 10
(b) 108
(c) 51
(d) 4

(xvi) Who divided *Veda* into four *Vedas*?

(a) Ved Vyas
(b) Pail
(c) Jaimini
(d) Valmiki

(xvi) How many *Smritis* are there?

(a) 4
(b) 2
(c) 20-30
(d) 2

(xviii) How many epics are there?

(a) 4
(b) 6
(c) 2
(d) 0

(xix) Which is the 5th *Veda*?

(a) Rigveda

(b) Samveda

(c) Gandharvaveda

(d) Mahabharata

(xx) Indian Knowledge System comprises:

(a) *Veda*, *Upa Vedas*, *Vedangas* and *Veda Darshanas* only

(b) *Upanishadas*

(c) *Smriti*, *Puranas* and *Itihasa* (Epics)

(d) All of the above

(xxi) How many *Vedanta Darshanas* (philosophies) are there?

(a) 4

(b) 6

(c) 1

(d) 0

(xxii) How is authority of *Advait Vedanta* Philosophy?

(a) Madhavacharya

(b) Ramanujacharya

(c) Nimbakacharya

(d) Adi Jagadguru Shankaracharya

(xxiii) Vallabhacharya is Acharya of which *Vedanta* philosophy?

(a) *Advait*

(b) *Dvait*

(c) *Shuddhadvait*

(d) *Vishishttadvait*

(xxiv) Identify *Brahmana* of Samveda.

(a) Aitreya

(b) Satpatha

(c) Chandogya

(d) Gopatha

Key to Multiple Choice Questions

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)
(a)	(d)	(d)	(a)	(a)	(a)	(c)	(a)	(c)	(b)	(c)	(b)	(a)
(xiv)	(xv)	(xvi)	(xvii)	(xviii)	(xix)	(xx)	(xxi)	(xxii)	(xxiii)	(xxiv)		
(c)	(c)	(a)	(c)	(c)	(d)	(d)	(b)	(d)	(c)	(c)		

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Unit 2 : Knowledge: Framework and Classification

Chapter 3

GAUTAMA'S *NYAYA DARSHANA*

Learning Outcomes

1. To learn about Akshapada Gautama Rishi
2. To learn about Gautama's *Nyaya Sutras*, commentary by Vacaspati and Vartika of Uddyotkara and other works
3. To understand concept of Treatise (Shastra)
4. To learn the instruments of Right Cognition
5. To know about *Nyaya Sutras*' relevance for contemporary world
6. To know about *Pramana*, *Prametri*, *Prameya*, *Artha*, etc.
7. To know briefly about 16 elements of *Nyaya* and its purpose and destination

Structure

3.1 Akshapada Gautama Rishi
3.2 Gautama's *Nyaya Sutras*
3.3 Contemporary Relevance of *Nyaya Sutras*
3.4 Concept of Treatise (*Shastra*)
3.5 Instruments of Right Cognition
3.6 Objectives of Right Cognition (Sutra)

3.7 Doubt
3.8 Motive
3.9 Example
3.10 Theory
3.11 Factors of Inference
3.12 Hypothetical Reasoning (*Tarka*)
3.13 Demonstrated Truth
3.14 Discussion
3.15 Disputation
3.16 Wranglings
3.17 Fallacious Reasons
3.18 Perverse Reasoning
3.19 Casuistry
3.20 Clinchers
3.21 Summary
3.22 Keywords
3.23 Expected Learning Outcomes
3.24 Self-test Questions
3.25 References and Further Readings

3.1 AKSHAPADA GAUTAMA RISHI

Akshapada Gautama is believed to have lived in 4000 B.C. He was author of Gautama *Nyaya Sutras*. He is Acharya of *Nyaya Darshana* (Philosophy of Justice). One of six *Veda* philosophies. He belonged to pre-Buddha era.

There is interesting incident behind his getting the prefix to his name 'Akshapada'. One day, he was deeply involved in logic (*Tarka*) analysis. He fell into a well. After that, God blessed him that in future, he will be able to see by feet also. Thus, he was called 'Akshapada'. A person of feet with power to see through feet.

3.2 GAUTAMA'S *NYAYA SUTRAS*

This work is believed to date back to 4th century B.C., the time of Acharya Chanakya, an Acharya of Political Economy and Vatsyayana of Kamasutra. Vatsyayana Bhashya of *Nyaya Sutras* dates back to 200 B.C. Nyaya Vartika by Uddyotkara dated back to 5th century A.D. *Nyaya Sutra* is pre-Buddha era work. It contains *Sutras* related to *Tarka*, *Nirnaya*, *Pramana*, Fallacies of *Tarkas*, etc.

The purpose of *Nyaya Sutra* is to attain peace and welfare of humans. It is worth noting that Gautama established a path-breaking purpose that what is the purpose of spirituality can be the purpose of science also. Truth can be arrived and peace and welfare of humans can be attained

by spirituality and science both. Vacaspati Mishra's *Nyaya Vartika*, Udayana's *Tatparyasuddhi* and Raghutama's *Bhashyacandra* are later work related to Gautama's *Nyaya Sutrad*.

3.3 CONTEMPORARY RELEVANCE OF *NYAYA SUTRAS*

Several eminent former Judges of India's Supreme Court have publicly called for inclusion of Gautama's *Nyaya Sutras* in curriculum of legal education and training. Notable such names are former CJI Ramana, former Justice Katju and former Justice Nazeer. Another important area of application is research and investigation methods. All Ph.D. Scholars and other investigators must be exposed to Gautama's *Nyaya Sutras*, especially proof and false arguments.

3.4 CONCEPT OF TREATISE *(SHASTRA)*

A Treatise can be defined as a duly coordinated aggregate of words descriptive of a branch of knowledge. For example, *Vedas*, *Veda Darshanas*, *Vedangas*, *Upa Vedas*, etc. Here, *Nyaya Darshana*.

Word may be defined as an aggregate of letters. *Sutras* may be defined as an aggregate of words. A lecture (*Prakarna*) may be defined as an aggregate of *Sutras* related to a *Prakarna*. Lesson (*Ahikna*) may be defined as an aggregate of lectures. A Discourse (*Adhyaya*) may be defined as an aggregate of daily lessons. An aggregate of five discourses is called a Treatise (*Shastra*).

3.5 INSTRUMENTS OF RIGHT COGNITION

Let us first understand new terminology related to Gautama's *Nyaya Sutra*, a treatise on *Nyaya Darshana*.

1. **Cognizer (*Prametri*):** A person knowing the objective is called a cognizer.
2. **Cognized Object (*Prameya*):** The true character of the objective is known to cognizer is called cognized object.
3. **Right Cognition (*Pramiti*):** It ensures due cognition of the object, the presence of cause. The right instrument of right cognition is the cause.

Cognition is rightly effective when a thing is known by means of an instrument of right cognition. It has a possibility of fruitful and effective exertion (*Pravritti*). The agent (e.g., body and sensory organs) has cognized a thing (object, fact), by means of an instrument of right cognition. It means he desires either to acquire or to get rid of it. The agent is motivated by this desire either to acquire or to get rid of it. Exertion is defined as fruitful or unfruitful with reference to outcome of exertion.

The object or thing so cognized by means of the instrument may be of four kinds:

1. Pleasure
2. Source of pleasure
3. Pain
4. Source of pain

These four together are called '*Arthapadani*'.

As living beings are infinite, so these objects can be infinite. The right instrument of cognition must duly operate with regard to an object. The due success belongs to cognizer who has idea of the object. We call it cognized object. It must lead to right cognition. Thus, effective cause (right instrument of cognition) must be present.

Real nature of things may be: (1) Existing and (2) Non-existing. Through instrument of right cognition, a cognizer directly sees what does exist. Thus, the cognizer indirectly sees what does not exist. Suppose, for example, one sees day light by direct use of eyes. He indirectly sees it is not darkness or night.

Pleasure is seen good but freedom from pain is unseen or to be seen good. It may be absolute or relative/partial.

There are 21 kinds of pain:

1. Body is abode of pains (2-7).
2. Six sense organs when denied desired objects or faced with undesired objects, they transmit pain to mind (8-18).
3. Six type of cognitions (20) .
4. Pleasure to be followed by pain (21).

One can be free from pains in two ways:

1. Abandon human life – Present and future *dharma-adharma* are given up.
2. Detachment – Lead life as a detached witness. Accept things as they are.

Pramana – true and false both help apprehend *samanya* or general. When true *Pramana* is comprehended, the exertion is fruitful to arrive at truth. But if one acts as per false *Pramana*, truth eludes, benefit of doubt given or injustice done when false *Pramana* is accepted. Exertion may not be fruitful.

Cognition of truth prevails must come first for choice of Instrument of Right Cognition.

Instrument of Right Cognition or exertion, which comes first? Where capacity to do highest good belongs? It is possible in both ways – first instrument of right cognition comes or exertion comes first.

Gautama's *Nyaya Sutras* lay four important conditions of eligibility for cognizer. Man entitled to study *Nyaya Darshana* or *Nyaya Shastra* must be a man of inner qualities of head and heart. These are peace, purity, no desire, impartial or independent, stable mind, firm and fearless. Without right cognizer, mere *Pramana*, *Prameya* and *Pramiti* are of no avail. His intent and intellect will determine outcome of cognition process of justice.

We should be clear about one more point. One may be attached cognizer and other may be detached cognizer. What difference in outcome will be there?

Attached person seeks pleasure and removal of pain or protection from pain. Outcome will be pleasure when he gets what he likes or he gets relief from or protection against what he does not like. Outcome will be pain when what he likes is lost or missed and what he does not like he gets. Therefore, in case of an attached person, outcome of exertion or fruit may be either pleasure or pain. But a detached person is indifferent in pleasure and pain. He accepts what he gets as outcome. For him, only one outcome of exertion is there, i.e., outcome or fruit.

Now, we study each element of cognition in a bit more detail.

1. *PRAMANTAH*

It is apparently a singular word related to *Abaltra* only. But use of '*asi*' as affix to it makes it plural also to many number of *Pramanas*. It makes this word comprehensive only for *Pramana*. However, it includes both the instrument and *Abdativa* (cause) only. *Pramana* is cause because cognition of objects starts from it. *Pramana* is most effective means on which cognition significantly depends.

Types of *Pramanas*: There are four types of *Pramana*s:

1. **Sense Organ *Pramana*:** For example, eye witness, hearing proof, smell proof, touch proof, taste proof, etc.
2. **Multiple *Pramana*:** For example, earth can be seen by eyes and its smell can be taken by nose.
3. ***Pramana* Related to Time:** It may be past *Pramana*, present *Pramana* and future *Pramana*.
4. **Commix *Pramana*:** *Pramana* by one agent differs from other *Pramana* by other agent. What was seen by eyes was different from what was heard by ears. When eye witness *Pramana* is accepted, the other *Pramana* of hearing becomes totally useless for cognition of the same object. If Commix *Pramana* consists of one from sense contact and other from non-sense contact like inference, then *Pramana* will be accepted on the basis of similarity or trustworthy assertion. Line of demarcation has to be drawn between acceptable *Pramana* and not acceptable *Pramana*. Manner of cognition will differ from *Pramana* to *Pramana*.

Pramana is effective cause of cognition. Prametri and Prameya are not cause of cognition. In case of sense organ contact, there is a definite agent as instrument. Unless *Pramana* exists, how can *Prametri* (cognizer) and *Prameya* (cognized object) come into being? Sense organs, mind and intellect can be agent of *Pramana*. *Pramana* is the direct cause of cognition. *Prameya* and *Prametri* may be only indirect and auxiliary cause of cognition.

An efficient cause is one whose precise or absence materially influences the act of cognition. It has causal efficiency. Such a *Pramana* leads to immediate cognition.

Pramana is specific cause of each individual cognition. The '*Prametri*' is a cause that is common to all kinds of non-sensory cognitions. There are four types of non-sensory cognition:

1. Perceptional
2. Inferential
3. Analogical
4. Verbal

The *Prameya* is also common to cognition of all men. (The same object is cognized by all men.)

Therefore, *Prametri* and *Prameya* cannot be a cause of any individual cognition. Only *Pramana* is efficient cause of cognition.

2. *ARTHA*

(Motive, Purpose or *Prayojana* but not object)

Artha may be defined as purpose of cognition of a *Pramana*. It is the motive behind exertion undertaken for cognition. Outcome or fruit of exertion is measured with reference to *artha* or desired purpose. *Pramana* may be real or fake. Outcome may be either pleasure, relief or protection from pain, or pain. *Artha* may be of four types:

1. ***Heya*:** Pain or pleasure tainted with pain.
2. ***Hane*:** The knowledge to put an end to pain.
3. ***Upaya*:** The scientific knowledge from treatise (*Nyaya Sutra* of *Nyaya Darshana*).
4. ***Adhigantavya*:** The ultimate destination to attain truth and justice called 'Final Release'.

Cognition cannot be '*artha*' or purpose. It is neither pleasure nor pain. It is final end or destination itself. Its device is knowledge of scientific treatise of *Nyaya Darshana*. However, cognition may give pleasure to some people and pain to others as per the *artha* (purpose) of exertion set by them for self.

3. *PRAMETRI*

Prametri is a cognizer who is self-sufficient and independent. Self-sufficient means autonomous and not dependent on anybody else. He is an upright person. He is the experiencer or enjoyer of the outcome brought out by the active agencies pertaining to it. He acts at his own pure mind and intellect, inner voice of conscience (soul) and not pressure of fear or favour, or selfish greed. The cognizer uses a lamp to know what things exist and also what things do not exist. Attaining highest good (peace, justice, welfare, removal of injustice, etc.) is the only purpose of a *Prametri* or cognizer (Judge).

3.6 OBJECTIVES OF RIGHT COGNITION *(SUTRA)*

The objectives of right cognition are:

1. To ensure fulfillment of the well-being of all.
2. To deliver justice.
3. To resolve conflict and ensure peace.
4. To provide pleasure or means of pleasure.
5. To provide relief from pain.
6. To provide protection against future pain.
7. To provide pain and means of pain.

Well-being, pleasure and pain are common in all other Vedic philosophies. In *Nyaya*, it is truth and justice which are obvious objectives of right cognition. Ultimate purpose is 'Release' or *Moksha*.

The word '*Shesha*' refers to *tattva* (real nature) which is part of *Pramana*. *Pramana* carries fruits of exertion also. Highest good may be seen or perceived to be done or not perceived to be done. *Tattva* and *Pramana* cannot be independent of each other.

3.7 DOUBT

When *Pramana* cannot be accepted as true immediately, then it is called to be doubtful. Some suspense is there. Before its final acceptance, doubt has to be removed through hypothetical reasoning (*tarka*). When truth is demonstrated beyond an iota of doubt, only then *Pramana* is accepted or cognized. Otherwise, it will be rejected if doubt or suspense is not removed completely. Doubt or suspense is the reason for initiation of process of *tarka*. If no doubt or suspense is there, *tarka* is not needed. *Pramana* becomes a demonstrated truth.

3.8 MOTIVE

As already explained, motive, purpose motive or artha of action is to acquire or give up a thing. For *Nyaya*, it is highest well-being or happiness of soul of *Pramiti* or cognizer. Its device is *Nyaya Shastra*. *Pramana*, *Pramiti*, demonstration of truth and doubt, *tarka* all have to keep in view this central motive.

When we discuss artha or motive of *Nyaya Darshana*, it mingles with other branches of *Darshana* like Yoga, *Sankhya*, *Vaisheshika* and *Vedanta* all talk about the same elements – soul, pleasure, pain, and finally talk of ultimate destination of release, *Moksha*, self-realization or experience of happiness and bliss. All *Darshanas* are the same as far as motive is concerned.

In all actions related to *Nyaya*, some motive is there.

3.9 EXAMPLE

Example is one which has to be directly perceived or known by all enquiries. It cannot be failed to be perceived or known by enquiries. Inference and verbal testimony depend on example. It corroborates the premise. All reasoning proceeds from example. It may be used either to support own position or to demolish opponent's position. Example may be a past case or incident. Example may not be admitted to attack position of the opponent. An example may be corroborative or dissimilar or contradictory to the premise. Example is essential factor in reasoning (*tarka*).

3.10 THEORY

It is the specification of a definite opinion – either of this or thus. This or thus is the opinion of *Nyaya Darshana*, or *Vedanta*, or *Vaisheshika*, or *Sankhya*. If all *Darshanas* are unanimous on an opinion, then we say all agree on this view. Then it becomes general theory. But an opinion which relates to one *Darshana* is called specific theory. Discussion, disputation and wranglings are with reference to some theory. As part of *tarka*, a theory may be advanced and contested.

3.11 FACTORS OF INFERENCE

These are parts of an inference. Say 'What' is this sentence of yours?' 'What does this word used by you indicate?' It is statement of conclusion and rest. It is verbal. However, inference is yet to be proved by reasoning. Perception, minor premise, concomitance, etc. become cause of activity. Analogy is also one factor of inference. Say as this so that. Analogy is the statement of

the minor premise. Reassertion of the conclusion is also a factor. Capability – every one of the statements in question is dependent upon what is expressed by another. *Nigamana* is final reassertion of the conclusion. All other factors are tied together, made to bear upon a single object.

Fivefold declaration constitutes the highest form of reasoning. Highest form of reasoning means power to convince the opponent or non-believer. Thus, factors of inference may be accepted as a means of cognition. They set in motive, discussion, disputation and wrangling. Thus, they become the basis of arriving at the truth – cause as well as means of truth.

3.12 HYPOTHETICAL REASONING (*TARKA*)

It scrutinizes a means of cognition. It itself is a means of cognition. It sets into action when *Pramana* is not accepted as demonstrated truth. Suspicious/Suspense leads to discussion, disputation and wranglings. Then *tarka* helps in arriving at truth or cognition.

Discussions, disputations and wranglings may precede hypothetical reasoning or also may move along with it till truth is demonstrated by *tarka*. Truth is clinched by *Prametri* (cognizer) and all other clinchers are put at rest.

3.13 DEMONSTRATED TRUTH

It is the final outcome of the means of cognition. It is true knowledge. It is means as well as result of cognition. After reasoning, we arrive at demonstrated truth.

Hypothetical reasoning (*Tarka*) and demonstrated truth together carry on all the businesses of the world, i.e., *Nyaya* or Justice. Acquire what is truth and give up what is not true.

3.14 DISCUSSION

Several speakers or pleaders present different theories and discuss them. Each proponent tries to establish a theory and demolish contrary theories of opponents. One theory is sought to be proved. Discussion is a device or '*Sadhana*' for this objective. *Pramanas* are presented and contested through '*tarka*' or reasoning.

3.15 DISPUTATION

Disputation is a form of discussion. Use of perverse reasoning, casuistry and clinchers may be made. It exceeds limit of discussion.

3.16 WRANGLINGS

When a speaker evades taking any position, it is an attempt to dispute without advancing a counter theory. Discussion is with a person willing to learn while disputation and wranglings are carried as with those who are perverse in their ignorance. They are too proud to learn anything new.

3.17 FALLACIOUS REASONS

Those are reasons not valid but enter discussion in the grab of true reason. When falsity is pointed out and proved, the reasoning gets defeated. However, for some time, the opponent will get engaged in countering fallacious reason. One who uses fallacious reason runs risk of being caught but he usually never admits that his reason was false. He may succeed in creating confusion in the mind of opponent and cognizer both for some time. Example, day is cloudy. In discussion, such reason can be indicated and opposed.

3.18 PERVERSE REASONING

It is worse than fallacious reasoning. The opponent should challenge it and plead for punishment of user of perverse reasoning. It is very risky. Example, day is night or night is day. In disputation, such reasoning may be used.

3.19 CASUISTRY

Attaching wrong meanings to arguments and casuistry are separately enumerated in clinchers. These must be avoided by one in own assertions. When opponent resorts to them, he must be forcefully countered by refutation. Help of judge or umpire can also be sought for their rejection with penalty. One will have to prove the allegation of casuistry.

3.20 CLINCHERS

Perverse reasoning, casuistry and clinchers are used in hypothetical reasoning. However, these should be avoided. The opponent must be alert to counter them with force and seek help of umpire in their rejection with penalty. Clincher means misapprehension or incomprehension.

When truth is revealed and clinched, all other clinchers of falsehood get destroyed. Truth is *Brahman* or soul. Protection of truth is mission of *Nyaya Sutra* treatise. All of us trust commit to follow it in our life.

3.21 SUMMARY

Akshapada Gautama Rishi authored *Nyaya Sutras* in 400 B.C. Purpose of it is highest well-being and peace for humanity with ultimate destination of release or *Mukti*. Instruments of right cognition are P*ramana*, *Prametri*, *Prameya* and *Artha*. Object of thing cognized is fourfold and called '*Arthapadani*'. There are 21 kinds of pain. *Prametri* qualities are purity of head and heart, self-reliance and independence. Attached person may have two fruits of exertion but unattached person has one fruit only. *Pramanas* are of four types. Non-sensory *Pramanas* are also of four types. *Pramana* is only efficient cause of cognition. If *Pramana* is accepted as true, then no other action is needed. But if doubt or suspicious about truth of *Pramana* exists, then discussion, disputation, advancing and contesting theories, inferences, hypothetical reasoning (*Tark*a) follow to arrive at demonstrated truth and its cognition. In discussion, false arguments are used and indicated. In arguments, use of perverse reasoning, casuistry and clinching them and seeking help of cognizer. Truth be clinched. It is *Brahman* or soul.

3.22 KEYWORDS

Nyaya Sutra, *Nyaya Darshana*, *Pramana*, *Prametri*, *Prameya*, Sense Contact *Pramanas* and Non-sense Contact *Pramanas*, *Artha*, *Arthapadani*, Doubt, Motive, Example, Theory, Factors of Inference, Hypothetical Reasoning (*Tarka*), Demonstrated Truth, Discussion, Disputation, Wranglings, Fallacious Reason, Perverse Reasoning, Casuistry and Clinchers.

3.23 EXPECTED LEARNING OUTCOMES

Commitment to *Nyaya*. To create law abiding truthful society. Knowledge of logic, arguments in investigation/research.

3.24 SELF-TEST QUESTIONS

1. Describe Akshapada Gautama Rishi and his *Nyaya Sutra* (*Nyaya Darshana*).
2. Explain contemporary relevance of Gautam Rishi's *Nyaya Sutras*.
3. Define Treatise.
4. Define the following terms:
   (a) *Prametri* (Cognizer)
   (b) *Prameya* (Cognized object)
   (c) *Pramiti* (Right cognition)
   (d) Objective of right cognition – *Arthapadani*
5. Explain kinds of pain.
6. List various types of *Prameya*.
7. List non-sensory cognition types.
8. Define:
   (a) *Artha*
   (b) *Prametri*
   (c) Doubt
   (d) Example
   (e) Theory
   (f) Demonstrated Truth
9. Explain:
   (a) Factors of Inference
   (b) Hypothetical Reasoning (*Tarka*)
   (c) Discussion
   (d) Disputation
   (e) Wranglings

10. Describe different types of reasons.
11. Define casuistry and clinchers.
12. Differentiate between discussion, disputations and wranglings.
13. Select only one correct answer out of the four options given in the following MCQs:

(i) Who is author of *Nyaya Sutra*?
   (a) Ved Vyasa
   (b) Kanad
   (c) Panini
   (d) Gautama Rishi

(ii) What is the ultimate purpose of *Nyaya Sutra* knowledge?
   (a) To make money
   (b) To attain release
   (c) To attain peace and well-being for all
   (d) None of the above

(iii) A treatise contains how many discourses?
   (a) 5
   (b) 10
   (c) 50
   (d) 100

(iv) *Prametri* means:
   (a) *Prameya*
   (b) *Pramiti*
   (c) Cognizer
   (d) *Pramana*

(v) The object of *Prameya* (thing cognized) is:
   (a) Pleasure
   (b) Source of Pleasure
   (c) Pain and Source of Pain
   (d) All of the above

(vi) Number of kinds of pain is:
   (a) Infinite
   (b) 21
   (c) 4
   (d) 0

(vii) Independence is the attribute of:
  (a) *Prametri*
  (b) *Prameya*
  (c) *Pramana*
  (d) *Pramiti*

(viii) Perception and Inference are:
  (a) No *Pramana*
  (b) Sense contact *Pramana*
  (c) Non-sense contact *Pramana*
  (d) None of the above

(ix) Non-sensory cognition is:
  (a) Inferential
  (b) Analogical
  (c) Verbal
  (d) All of the above

(x) *Adhigantavya* is:
  (a) *Heya*
  (b) *Hane*
  (c) *Upaya*
  (d) Ultimate purpose

(xi) Hypothetical Reasoning (*Tarka*) is needed when *Prameya* is:
  (a) Suspicious/doubtful
  (b) True
  (c) No *Pramana* is needed
  (d) *Pramana* is hypothetical

(xii) What is name given to specification of a definite opinion?
  (a) Example
  (b) Theory
  (c) Dispute
  (d) Wrangling

(xiii) The statement of minor premise is called:
  (a) Example
  (b) Theory
  (c) Analogy
  (d) Disputation

(xiv) Hypothetical Reasoning (*Tarka*) is:
- (a) Cognition
- (b) Means of cognition
- (c) Scrutiny of means of cognition
- (d) None of the above

(xv) Tarka is successful when:
- (a) Truth is demonstrated
- (b) False is proved as true
- (c) Discussion, disputation and wranglings are prolonged
- (d) Nothing is clinched

(xvi) Perverse reasoning is used in:
- (a) Disputation
- (b) Discussion
- (c) Causistry
- (d) Clinching

(xvii) Fallacious reasoning is used in:
- (a) Discussion
- (b) Disputation
- (c) Causistry
- (d) Clinching

(xviii) When a speaker avoids taking any position, it is called:
- (a) Wrangling
- (b) Discussion
- (c) *Tarka*
- (d) Disputation

(xix) When a person is willing to learn, then use:
- (a) Discussion
- (b) Dispute
- (c) Wrangling
- (d) None of the above

(xx) Causistry means:
- (a) Attaching wrong meaning to an argument
- (b) Giving fallacious reasons
- (c) Not taking a position
- (d) Demonstrating truth

Key to Multiple Choice Questions

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
(d)	(b)	(a)	(c)	(d)	(b)	(a)	(c)	(d)	(d)
(xi)	(xii)	(xiii)	(xiv)	(xv)	(xvi)	(xvii)	(xviii)	(xix)	(xx)
(a)	(b)	(c)	(c)	(a)	(a)	(a)	(a)	(a)	(a)

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Chapter 4

KANAD'S VAISHESHIKA DARSHANA

Learning Outcomes

1. To know about Kanad Rishi
2. To know about *Vaisheshika Sutra* of Kanad Rishi
3. To know about *Vaisheshika Darshana* Principles
4. To understand similarities and differences between *Nyaya Darshana* and *Vaisheshika Darshana*; between *Vaisheshika Darshana* and Buddhism
5. To learn Inductive and Deductive Logic Framework
6. To learn application of *Tarka* – Logic and Argument
7. To know application of Indian Art of Debate – Dialogue
8. To know potential fallacies in reasoning process
9. To know about tenets in a field of study

Structure

4.1 Kanad Rishi

4.2 *Vaisheshika Sutra* of Kanad Rishi

4.3 *Vaisheshika* Philosophy

4.4 *Prameya* – A *Vaisheshikan* Approach to Physical Reality – *Dravyas*, Attributes and Action

4.5 Action – *Vaisheshikan* Worldview of 'Existence'

4.6 *Pramana* – Evidence/Proof

4.7 *Samasya* (Problem)

4.8 Comparison between *Nyaya Darshana* and *Vaisheshika Darshana*

4.9 Potential Fallacies in the Reasoning Process
4.10 Established Tenets in a Field of Study
4.11 Summary
4.12 Keywords
4.13 Expected Learning Outcomes
4.14 Self-test Questions
4.15 References and Further Readings

4.1 KANAD RISHI

Kanad Rishi lived in India in 2nd-6th century B.C. He laid foundation of Nuclear Physics in the world. He was a Vedic Rishi with *Shaivism* worship and attire. His full name was Kanad Kashyapa Rishi.

4.2 *VAISHESHIKA SUTRA* OF KANAD RISHI

Vaisheshika Sutra is more ancient work than Gautama's *Nyaya Sutra*. It dates back to 300 B.C. It dealt with Naturalism. This differentiates it from rest five Vedic philosophies. Its commentaries are written by Prashastapada, Udayanacharya and Shrihara.

4.3 *VAISHESHIKA* PHILOSOPHY

This is counted among 6 Vedic philosophies of India. These are *Mimansa*, *Vedanta*, Yoga, *Sankhya*, *Nyaya* and *Vaisheshika*. *Vaisheshika* Philosophy was founded by Kanad Kashyapa Rishi through his *Vaisheshika Sutras* in 300 B.C. Its subject-matter is related to know *Vishesha* or particular in the material world through differentiation. It has some similarities and dissimilarities with Gautama's *Nyaya Darshana* and Buddhism. All six *darshanas* have a common purpose of release, or *Moksha*, or self-realization, or truth. Some are theist and some are atheist. *Mimansa* and *Sankhya* are atheist. These have no concept of God/*Ishvara*. Vaisheshika Philosophy, although deals with material world or science, mainly physics, yet it accepts concepts of soul and God. It may be called science with spirituality.

In the early stages, *Vaisheshika* Philosophy was an independent branch of India's Vedic philosophies with its own Meta Physics (*Adhyatma* and *Tattvamimansa*), Epistemology (*Gyan Mimansa*), Logic (*Tarka*), Ethics (*Niti)* and Soteriology (*Mukti Shastra*). Later on, it merged partially with Gautama's *Nyaya Darshana* due to common meta-physical theories. However, instead of four types of *Pramanas* in *Nyaya Darshana*, *Vaisheshika Darshana* accepted only two sources of valid knowledge – Perception and Inference. Like Buddhism, it had deep faith in own scriptures (*Vedas*). However, Buddhism was atheist whereas *Vaisheshika Darshana* was theist.

By 11th century, *Vaisheshika* and *Nyaya* both were combined and referred to as *Nyaya Vaisheshika* School, although several differences between the two still persisted.

4.4 *PRAMEYA* – A VAISHESHIKAN APPROACH TO PHYSICAL REALITY – *DRAVYAS*, ATTRIBUTES AND ACTION

Dravya is a physical reality. Nine *Dravyas* are building blocks. These are real entities. Some are observable by sense organs. These are four – Earth, Water, Fire or *Teja* and *Vayu* or Air. These can be seen, smelt, tasted, heard and touched by eyes, nose, tongue, ear and skin respectively. Other five *Dravyas* are real but not visible or subject of sense organs. These are space, time, directions, soul and mind. These are eternal (*Nitya*) *Dravyas*. As far as motion attribute is concerned, earth, water, fire, air and mind hear this attribute. But space, time, directions and soul do not have attribute of motion. These are real but can be perceived by mind only, not by sensory organs. Only first four *Dravyas* – Earth, Water, Fire and Air constitute visible material world. These four *Dravyas* change own form but cannot be destroyed.

Each *Dravyas* have unique attributes and identifiable *Linga*.

Now, we take up some complicated issues related to *Dravyas*.

1. Time and Space can be recognized as two distinct *Dravyas* only when their difference is established. But simultaneous presence of the two make them one *Dravya*. Space has no motion. Only whole cosmos moves. Only matter has motion. Space is still. Space is eternal. It is an independent entity. Space is existent, unique *padartha* with own attributes. It can give rise to another *Dravya* but it itself is motionless. It is homogeneous.
2. Directions arise in space. Space is diverse in nature. Matter does work is space. From the conjunction of space with Sun, it becomes *Prachi* (East) direction. In the same manner, other three directions, west, worth and south emerge in space.
3. Time and space are fundamental entities of everything. Space-time matrix is fundamental of the matter of world. Mind cannot escape their observation while observing the world.
4. Division of time into past, present and future is caused by *Buddhi* (Intellect). Primary is conjunction or disconjunction of matter. Role of intellect is only secondary.
5. Space, time and sky/ether are one and the same which are observed as different entities due to nature of effects observed by the mind in their interaction with matter.

   Eternal may be defined as existent and uncaused. These are not theoretical but real in existence. For example, space, directions, time, soul and mind.

   The smallest particle of any matter is called '*Anu*'. Combination of *anus* of earth, water, fire and air cause creation of the world and separation of *anus* of earth, water, fire and air cause dissolution or *Pralaya*. This is called action or *Karma*. *Anu* and space are not visible by eyes. These are perceived and identified by mind. There are *di-anu* and *tri-anu* (*tristenu*) states also. *Anu* is not visible. It is motionless. It is only abstraction without any shape. *Anu* is minima of the magnitude and *Mahat* (space) is maxima but not necessarily infinite. Invisible causes flame of fire to rise up, air to blow and water to flow down.

   This is about 9 *Dravyas*, their attributes and action. Thus, *Vaisheshika* Philosophy laid foundation of Nuclear Physics in the world.

4.5 ACTION – *VAISHESHIKAN* WORLDVIEW OF 'EXISTENCE'

Action or *Karma* means creation and dissolution of material universe. Matter changes its form but cannot be destroyed even in *Pralaya*. Combination of anus leads to creation and separation of *anus* leads to dissolution or *Pralaya*.

Vaisheshika Darshana believes in role of God in action. As per *Karma* theory, God determines *yoni* of soul and its pleasure and pains in life. God determines fruit of action/*karma*.

Thus, *Vaisheshika* Philosophy like *Nyaya* Philosophy believes in soul, God, *karma* theory, etc. At specific *Dravya* level, there are different actions. For example, moving, flaming, joining, disjoining, rising, falling, blowing, etc.

4.6 *PRAMANA* – EVIDENCE/PROOF

Pramana, proof or evidence in *Vaisheshika* Philosophy is different from *Nyaya* Philosophy. As per *Tarka Samgraha* of Annambhatta, this philosophy states the doctrine in a categorical way. There are seven categories in Vaisheshika Philosophy. These are:

1. ***Dravya* (Substance) –** 9 *Dravyas* already described.
2. ***Gyna* (Attribute) –** Each *Dravya*'s specific *gunas* already described.
3. ***Karma* (Action) –** Creation, dissolution, *karma* theory, *karma phala* by God, the supreme authority already explained. Each *Dravya* has specific action also.
4. ***Samanya* (General) –** Some attributes are general or common like visibility, eternity, etc.
5. ***Vishesha* (Particular) –** Each *Dravya* has its particular attributes. For example, earth has smell. Sky has *shabdaguna*. Air has touch *guna*. Water has taste and flow. Fire has form and heat *guna*.
6. ***Samavaya* (Inherence) –** This is inherent or natural attribute of a *Dravya* which gives it distinct identity.
7. ***Abhava* (Non-existence) –** Separation of *anus* cause dissolution. Some attribute is present but other attributes or absent. Water is liquid. Solidity is absent in it. These are called '*Padartha*' or categories.

Nyaya Philosophy has four types of proof – sense contact proofs plus nonsense contact proofs like perception and inference. Commix proof is also accepted. But *Vaisheshika* Philosophy accepts only two types of proofs – Perception and Inference. It does not have sense contact proof. This is about *Tarka* or Logic.

Anu is the basic particle of *Vaisheshika* Philosophy. Matter is observable through the effect of motion in a very consistent manner. Collection of *anus* become motionless and invisible to observation. It becomes an abstraction. Kanad does not use categories like real and ideal. According to Kanad, matter itself is a result of motion. Time and space arise of motion that *anu* obtains due to interaction. Thus, observer and observation are central in Kanad's *Vaisheshika* Philosophy. As against this, *Nyaya* Philosophy gives central place to *Pramana*, *Prameya*, *Pramiti* and *Tarka*, in case of doubt.

4.7 *SAMASYA* (PROBLEM)

Vaisheshika Philosophy examines/investigates any problem with the help of observational perceptions and inferences. In modern parlance, it may be called controlled variable experimental method of research. It uses logic based as *Dravya*, *guna*, action, general attributes, specific attributes, inherent attributes and non-existence of certain attributes. It is called *padartha* or categorization.

For study of any problem, there are two approaches to logic:

(i) Deductive Logic: First, a conclusion is stated which is already arrived at from certain logical facts. It is precondition that logical facts must be true on which conclusion is based. Let us take an example.

Conclusion:

1. All sustainable organizations have effective leaders on top (Logic 1).
2. Company A is sick (Logic 2).
3. Company A's leadership is not effective (Deductive Logic).

Precaution

It must be true that company A has fallen sick due to poor leadership at top. Role of external factor is not significant in its sickness. Only internal factor (poor leadership or mismanagement) has played significant role in making company A sick.

Proper definition of corporate sickness must have been used and company A must be sick as per definition used. Data used to analyze to determine sickness of company A must be reliable. Only then logic deduced that company A has poor leadership or mismanagement will be true.

Now, let us see how deductive logic can be misused by use of false reasoning:

1. Conclusion is based on inadequate number of cases analyzed in Logic 1.
2. Wrong definition of sick company may be used in Logic 2.
3. Data used for either Logic 1 or 2 or both is unreliable.
4. False reasoning makes use of deductive logic inattentive. Assumed cause-and-effect relationship between logic 1 and logic 2 does not hold true.

(ii) Inductive Logic: No absolute or strong cause-and-effect relationship is assumed between logic and induction A conclusion may be arrived which is different from hypothesis and logic. Thus, for example, company A is sick. Research problem is what are the possible reasons for sickness of company A? Several causes for sickness of a company may be imagined and hypothesized by the researcher with open or independent mind for testing on the basis of reliable observations (data) collected and their analysis.

1. Sickness and mismanagement are independent factors.
2. Sickness and adverse external business environment are independent factors.

Possible hypotheses may be:

1. Supply-chain obstacles existed.

2. Poor capacity utilization due to power trapping.
3. Change in fashion.
4. Change in technology.
5. Shortage of working capital.
6. Adverse changes in government policy.
7. Falling labour productivity.
8. Cost has increased which could not be charged from customers.

Every hypothesis is a potential truth. We may select such hypotheses which have high potential of truth. Primary and secondary data will be collected to test them. Null hypothesis may be accepted or not accepted. Then conclusion will be arrived on the basis of inductive logic approach.

In inductive logic approach also, use of false logic may lead to false conclusion. For example,

1. Sickness and mismanagement are not properly defined.
2. Possible null and alternative hypotheses are improperly formulated. Strong potential of truth hypotheses ignored and weak potential of truth hypotheses selected for research.
3. Data not properly collected.
4. Wrong test of significance applied.
5. Spurious relationships of variables used.

Both approaches of logic have their own limitations. Therefore, hybrid logic or reasoning is used. Research question on scene perceived is formulated by deductive logic approach. It is a fact. Then inductive logic approach is used to for mute hypotheses. Then conclusion is arrived at.

4.8 COMPARISON BETWEEN NYAYA DARSHANA AND VAISHESHIKA DARSHANA

Vaisheshika and *Nyaya* Philosophies have some similarities and differences. These are listed in the the table given below.

Sr. No.	Attribute	*Nyaya Darshana*	*Vaisheshika Darshana*
1	Meta Physics	God, Soul and *Karma*.	God, Soul and *Karma*.
2	Ultimate Purpose	Release.	Release.
3	Logic (*Tarka*)	Starts with doubt or issues.	Starts with doubt or questions.
4	Focus of Study	Truth and *Nyaya*.	Truth about material world.
5	Epistemology (*Gyan Mimansa*)	*Pramana*, *Prameya*, *Prametri* and Logic.	Dravya, Categories, *Anu*, *Mahat* and Observer.
6	*Pramanas*	Sensory and Non-sensory (4 types).	Only Non-sensory (2 types) – Perception and Inference.

Sr. No.	Attribute	*Nyaya Darshana*	*Vaisheshika Darshana*
7	Ethics	False logic, perverse logic opposed. Theism.	False logic perverse logic opposed. Theism.
8	Soteriology	Release (*Mukti*).	Release (*Mukti*).

Nyaya Vaisheshika philosophies merged into one at later stage.

Vaisheshika philosophy and Buddhism are contemporary. The former is theist and the latter is atheist. Both have deep faith in own scriptures – Veda for *Vaisheshika* and *Agamas* for Buddhist. Both use perception and proof as *Pramana*.

4.9 POTENTIAL FALLACIES IN THE REASONING PROCESS

Vaisheshika philosophy also has problems of fallacies in reasoning process or logic. Deductive logic has problem of false conclusion (logic 1) and false statement of fact (logic 2) and fake deduction based on them. Inductive logic approach also has problem of deriving or formulating false hypothesis, using false data and use of wrong method of testing significance. It is possible to reject what must be accepted as true (type I error) and accept what must be rejected as false (type II error). Observation may also be falsely recorded. Leading to false reasoning and false conclusion. Adherence to ethics and fear of God and *Karma* Theory may put a check as false and perverse reasoning. This applies to *Nyaya* Philosophy also.

4.10 ESTABLISHED TENETS IN A FIELD OF STUDY

1. Must doubt what be doubted.
2. Use observation, *Pramanas* and logic to arrive at truth.
3. If doubtful is proved false, then be bold to declare it as false.
4. Doubt should not be carried in daily life. It can make your life hell. Trust a person till he is proved otherwise, i.e., untrustworthy.
5. Doubt sense perception things. Our senses may err. In sleep, we imagine non-existent things. There is no reliable basis to distinguish between imagination in sleep and awakening.
6. Even mathematically demonstration be doubted. Sometimes, people mistake probability as certainty. God is not visible but we may put on him 100% faith or even faith. Certainty also has some margin of error. How can we claim that God has made us perfect?
7. Be free to not accept a doubtful thing and seek proof of truth.
8. Think but be sure that you really exist. Don't get lost if your existence is in philosophical thinking.
9. Soul and Body are different. Soul is immortal whereas body is mortal. Never care more for body than soul or truth.
10. Don't complicate obvious thing by devising abstract logical definitions. Self-evident things are not hard to discover.

11. Our mind is better known than body. More certain and evident is mind than body.
12. Don't ignore other's existence.
13. Most evident may also go wrong.
14. God, Soul and Truth exist really, though not visible and provable. All material objects have contingent existence with mortality. Death is certain but its time is uncertain.
15. Man with preconceived notion may say God, soul and truth don't exist.
16. The greater the representative perfection in our idea that greater its cause be.
17. God made us. Hence, he exists.
18. God is infinite. We are finite. But God resides in us. Without him, we are dead.
19. World is finite and indefinite/uncertain. Note difference between infinite and indefinite.
20. There no fullstop to knowledge. Efficient cause of creation be continuously investigated.
21. God is not cause of our errors and sins. God never deceives us. Be accountable for your errors and sins.
22. Perceive with pure intellect and be willing to do so.
23. Inadequate knowledge causes errors. Read or study the subject thoroughly.
24. Making a judgement or conclusion requires intellectual will and courage. Will is more important.
25. Act freely, independently and voluntarily. Don't be academic prostitute.
26. Falling into errors, sin or falsehood is bad behaviour, not bad nature. Don't blame God.
27. We will not go wrong if we accept only what we vividly and clearly perceive.
28. Substance is attribute of thought. For body, it is our extension.
29. There are some attributes in things and some in thought.
30. Universal is made of thinking. Five universals are genus, species, differentia, property and accident.
31. Know real distinctness, modal distinctiveness and distinctness of reason.
32. Be aware of sensation, emotions, urges, which may make us go wrong in our judgement/ conclusion.
33. Get free of early age prejudices, preconceived nations/opinions and use of wrong words.
34. A true philosopher must rely on own true perception.

Nyaya and *Vaisheshika* Philosophies are useful in arriving at truth in judgement/conclusion. *Vaisheshika*'s concept of treating disease by its cause is applied in Ayurveda. These philosophies provided basis or root of modern scientific research.

4.11 SUMMARY

Vaisheshika philosophy of Kanad Rishi is given in his '*Vaisheshika Sutras*' of 300 B.C. Earlier, it was independent, but later on, it merged with Nyaya philosophy forming *Nyaya Vaisheshika* School. Vaisheshika means study of particularity of natural objects. There are *Dravyas*, 7 categories and several actions. God determines actions as per *Karma* Theory. *Anu* is

the basic particle. Observer is central. There are two approaches to logic – Deductive and Inductive. Be careful about falsity in logic. *Vaisheshika* and *Nyaya* Philosophies have some similarities and differences. The same applies to *Vaisheshika* and Buddhism Philosophies. Tenets in the field of philosophical studies be grasped with care and practiced with commitment by all scholars and professionals. *Vaisheshika* philosophy has application in scientific research related to science.

4.12 KEYWORDS

Vaisheshika Philosophy, *Dravya*, Categories, Action, Inductive Logic, Deductive Logic, Hybrid Logic, *Nyaya Vaisheshika*, Fallacies in Reasoning (*Tarka*), Tenets in the Field of Study.

4.13 EXPECTED LEARNING OUTCOMES

Value-based scientific researchers for national transformation.

4.14 SELF-TEST QUESTIONS

1. Explain *Vaisheshika* Philosophy of Kanad Rishi. Compare it with *Nyaya* Philosophy of Gautama Rishi.
2. Describe *Dravyas* and their attributes.
3. Describe categories or *Padarthas*.
4. Explain actions.
5. Explain concept of '*Anu*'.
6. Describe various approaches to logic.
7. Explain fallacies in reasoning process.
8. Describe tenets in Philosophical Studies.
9. Select only one correct answer in each of the following MCQs:
   (i) Kanad Rishi lived in India in:
      (a) 2^{nd} century A.D.
      (b) 2^{nd}-6^{th} century B.C.
      (c) 1950 to 2100 B.C.
      (d) None of the above
   (ii) Vaisheshika Sutra was authored by:
      (a) Gautama Rishi
      (b) Ved Vyasa Rishi
      (c) Kanad Kashyapa Rishi
      (d) Adi Jagadguru Shankarcharya

(iii) *Vaisheshika Sutra* dated back to:
- (a) 300 B.C.
- (b) 200 B.C.
- (c) 200 A.D.
- (d) None of the above

(iv) Identify false statement about *Vaisheshika* Philosophy:
- (a) It believes in God
- (b) It deals with material world
- (c) It considers 4 types of *Pramanas*
- (d) It has concept of '*Anu*'

(v) Number of *Dravyas* are:
- (a) 4
- (b) 7
- (c) 9
- (d) Infinite

(vi) Which *Dravyas* make material world?
- (a) Earth, Water, Fire, Air
- (b) Earth, Water, Fire, Sky
- (c) Space, Time, Direction
- (d) Soul, Mind, God

(vii) Which is invisible *Dravyas*?
- (a) Air
- (b) Space
- (c) Water
- (d) Fire

(viii) Number of categories of *Padartha* is:
- (a) 10
- (b) 7
- (c) 4
- (d) 9

(ix) Inference means:
- (a) Natural attribute
- (b) *Abhava* (non-existence)
- (c) *Samanya*
- (d) *Vishesha*

(x) Main approaches to logic are:

(a) 3

(b) 2

(c) 9

(d) 7

Key to Multiple Choice Questions

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
(b)	(c)	(a)	(c)	(c)	(a)	(b)	(b)	(a)	(b)

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Unit 3 : Health, Wellness and Psychology

Chapter 5

YOGA PHILOSOPHY

Learning Outcomes

1. To know basic concept of Health, Wellness and Psychology
2. To know about Yoga Philosophy of Maharishi Patanjali
3. To know about literature on Yoga Philosophy
4. To know about other yoga methods
5. To learn about other yoga methods
6. To understand difference between Yoga Philosophy and Sankhya Philosophy
7. To understand difference between Ashtanga Yoga, Hatha Yoga, Vinyas Yoga, etc.
8. To learn application of Yoga in Health, Wellness, Psychology, Games and Sports, Dance, etc.
9. To appreciate emerging health and wellness issues in digital society

Structure

5.1 Concept of Health, Wellness and Psychology

5.2 Yoga Philosophy of Maharishi Patanjali

5.3 Sources of Yoga Philosophy

5.4 Ashtanga Yoga of Patanjali (8-step Yoga Practice)

5.5 Hatha Yoga
5.6 Ashtanga Vinyas Yoga
5.7 Comparison between Different Yoga Systems
5.8 Comparison between Yoga and Other Vedic Philosophies
5.9 Applications of Yoga Philosophy
5.10 Emerging Health and Wellness Issues in Digital Society
5.11 Summary
5.12 Keywords
5.13 Expected Learning Outcomes
5.14 Self-test Questions
5.15 Appendices
5.16 References and Further Readings

5.1 CONCEPT OF HEALTH, WELLNESS AND PSYCHOLOGY

The world 'health' is narrowly defined as absence of any disease in physical body. This is Biomedical Concept. The broader concept of health covers physical body, mind, intellect and soul health. It is a broad, holistic, inclusive and integrated concept of health given in Yoga philosophy of ancient India.

Health is a state of being. Wellness is the state of living a healthy lifestyle (PMC – NCBI). Both together is a balance between man and his environment, the unity of body, mind and soul. An integration of physical with psychological and philosophical or metaphysical (spiritual or *adhyatmik*) elements.

The UNO's World Health Organization (WHO) started from April 07, 1948. It has adopted wider concept of health. It defined health, as "a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity." And note that society is also a form of God/*Brahman* as per Vedic Philosophy.

WHO has issued the following guidelines for its member countries regarding health and wellness:

1. Attainable health enjoyment is fundamental right of all human beings without any discrimination.
2. Health is fundamental to the attainment of peace and security. It depends on cooperation of public and the states.
3. Promotion and protection of health is a key factor for performance of a state. Its failure to control disease, especially communicable disease, is a common threat.
4. Healthy development of child is of basic importance.
5. Benefits of medical, psychological and related knowledge is essential to the fullest attainment of health. It should be extended to all people.
6. Informed public opinion and active cooperation of pubic is a key factor in the improvement of health of people.

7. Government is responsible for health of public which can be fulfilled only by the provision of adequate health and social measures.

The Roger Williams University of USA's Health and Wellness Education have included five aspects in Health, Wellness and Psychology. These are:

1. **Physical:** Experience/walking 30 minutes daily, at least 3 days in a week for good physical fitness. Eat healthy food. Don't skip breakfast. Take 5 courses of seasonal fruits and vegetable in daily diet to be slim and trim. Avoid heavy drinking. Have 6-8 hours' sound sleep in night. Follow early to bed, early to rice. Be healthy, wealthy and wise.
2. **Emotional:** Develop positive attitude. Give up rigid likes and dislikes. Develop acceptance of what is inevitable. Don't expect much from others. Have a trustworthy friend to share your feelings. Talk and write. Consult psychiatry expert, if needed. Always have a relaxed and smiling face. Manage your time well to avoid stress.
3. **Social:** Get involved in clubs and social groups to eradicate blind faith, dogmas and communal/racial discrimination. Keep genuine friends only. Balance social (family) and work life.
4. **Spiritual:** Find a quiet and clean place to meditate, pray or chant. Contemplate as purpose of life. Appreciate benevolence of God around you and avoid complaining for non-fulfillment of desires. Happiness is in, not out.
5. **Intellectual:** Be a lifelong regular learner. Be updated on current affairs. Don't be obsolete.

5.2 YOGA PHILOSOPHY OF MAHARISHI PATANJALI

Yoga Philosophy is one of six philosophies of *Vedas* from ancient India. Its founder was Maharishi Patanjali. According to this philosophy, our body and mind are parts of natural world for which we must accept responsibility. Our interest as people be reflected as personified in the ideal of persons (God/*Brahman or Ishvara*).

A person, who is *Brahmaswarupa*, *Nijadandarupa* and *Anandrupa*, is free from self-sabotage and social hindrances. Our challenge is to embrace a practice devoted to this ideal of God, a master of our body, mind, intellect and soul, pure and truthful, peaceful and harmonious. For this, we have to switch off external world scene, stop entry of its pressures and internalize in self-*Anandaswarupa* soul or *Brahman*. Rest united with *Brahman* as Master of self. This is Yoga way of Maharishi Patanjali.

The purpose of Yoga Philosophy is to ensure attainment of physical body, mental and spiritual health, well-being and psychology.

Thus, Yoga is not truly represented by *Asanas* (body postures) only or *Pranayama* (breathing exercises) only, or mental exercise of *Dhyana* (meditations) only. According to Patanjali, these are ancillaries or preparatory actions to attain yoga (unity) of soul with *Brahman* or *Moksha*, the supreme purpose of birth in human *yoni*.

Yoga Sutra Book II and III defined yoga as mind control, surrender to God, *tapa*, *svadhyaya* for yoga with *Brahman*, or becoming *Brahmaswarupa*.

It should be noted carefully that yogi may get mastery over 8 *Siddhis* and 9 *Nidhis*. But a true yogi will reject them as obstacles in attaining the real purpose of yoga – unity of soul and *Brahman*.

5.3 SOURCES OF YOGA PHILOSOPHY

Maharishi Patanjali founded Yoga Philosophy by his seminal work, "Patanjali Yoga Sutras" in Sanskrit, on concept of Yoga and its practice. He complied 'Raj Yoga' also known as 'Ashtanga Yoga'. Hatha Yoga, Kundalini Yoga and 'Mantra Yoga' are its parts. Patanjali's work dates back to 2nd century B.C.

Gita Press, Gorakhpur published a commentary on 'Patanjali Yoga Sutra' in Hindi.

Vamana Rishi of Mysore authored 'Yoga Kaustubha' in 200 B.C.

Dr. Shyam Ranganathan's English translation of Patanjali's Yoga Sutras was published by Penguin in 2008. He belongs to York University, USA. He is accredited teacher and trainer of Yoga.

Upanishadas and *Gita* (*Vedanta* Philosophy) is also a good source of Yoga Philosophy (*Gita*, Chapter 6).

Yoga Philosophy is an extension of *Sankhya* Philosophy of Kapila Muni who talked about creation of the world by *Purusha* and *Prakriti*. He did not talk about God/*Brahman*, the creator and creation. Thus, *Sankhya* Philosophy remained atheist. Patanjali extended it to *Brahman*, the creator and creation and presented a theist philosophy. However, Yoga and *Sankhya* both believe in *Moksha*.

5.4 ASHTANGA YOGA OF PATANJALI (8-STEP YOGA PRACTICE)

There are 8 steps or angas of yoga practice in a sequential manner: (1) *Yama*, (2) *Niyama*, (3) *Asana*, (4) *Pranayama*, (5) *Pratyahara*, (6) *Dharana*, (7) *Dhyana* (Meditation) and (8) *Samadhi* (Trance).

First four consists of external yoga (Bahiranga Yoga) and last four as internal yoga (Antaranga Yoga). Internal yoga is meant for evolved *yoga sadhaka* only.

Now, we describe each limb or step in detail.

1. ***Yama* (Restrain or Abstinence):** It has five elements – non-violence, truth, no theft, no lust, no attachment-aversion (envy/jealousy), etc.
2. ***Niyama* (Discipline or Observance):** It has five elements – purity of body, contentment, austerity, *svadhyaya* and surrender to God. *Niyama* helps in practice of *Yamas*. Both constitute ethics of yoga.
3. ***Asana* (Body Posture):** There are 41 types of *Asanas*. Most popular of them are Padmasana, Semi-Padmasana, Sukhasana and Vajrasana. A yoga practitioner may select any one *asana* which helps in comfortable practice of yoga for about an hour sitting in straight, erect back position. Steady body is essential for stable mind.
4. ***Pranayama* (Breathing Exercise):** It involves inhaling and exhaling of *Prana Vayu* (oxygen) in a systematic rhythmic manner.

You start with Bhastrika Pranayama. It is deep breathing. Do for 5-10 minutes. Then do Kapalbhati. No inhalation. But contract belly inside and expand repetitively. Do for 5 to 15 minutes. Then do Anuloma-Viloma Pranayama. Inhale by Ida and exhale by *Pingala nadis*. Reverse it. Do alternatively for 5-15 minutes. This is called *Nadi* (Nerves) Purification Pranayama. Then do Brahmari Pranayama. Inhale air by nostrils and release it by mouth, making noise like black bees. Do it 5 times. Finally, do Ujjayi Pranayama by inhaling air by nostrils and making noise of *Om*. Starting with short a, long o and longest chant of 'm'. Repeat 5 times.

A variation of Anuloma-Viloma Pranayama is *Puraka* (Inhale), *Kumbhaka* (Hold) and *Rechaka* (Exhale) in 1 : 4 : 2 ratio of time. For example, count 1 to 5 for *Puraka*, 1-20 number for *Kumbhaka* and 1-10 for *Rechaka* and external hold.

Tribandha Pranayama can also be done by combination of *Mool Bandha, Udyan Bandha* and *Jalandhar Bandha*.

Pranayama can be of two types – *Sabeej* (with *beeja mantra*) and *Nirbeej* (without any *mantra*).

Specific *asanas* and *pranayamas* for specific existing disease of body or mind cure are prescribed as part of Yoga therapy. For this, you may consult Yoga *Gurus* like Baba Ramdev, Shri Shri Ravi Shankara, etc. See their videos. This is beyond scope of this book. You may consult/read B.V. Purohit of Vadodara's book '*Yoga Darshika*' for yoga therapy.

5. ***Pratyahara*:** After external *pranayama*, we have to prepare for internal *pranayama* meant only for evolved *yogis*. For this, we have to do four types of *Pratyahara* or withdrawals.
   - **(a)** ***Indriya Pratyahara*:** Withdraw from subjects of sensory organs – viewing, hearing, smelling, tasting and touching. These are external stimulis which disturb our mind. Concentrate on natural flow of breath pattern or on some *chakras* for relaxation of mind.
   - **(b)** ***Prana Pratyahara*:** Control *Udan Prana* which spread in the whole body. Don't focus on senses.
   - **(c)** ***Karma Pratyahara:*** Give up selfish fruit-giving *karmas* or *sakam karmas* which lead to bondage of rebirth.
   - **(d)** ***Mano Pratyahara*:** Withdraw your mind from external stimuli. Don't react to withdrawal and be inward-looking. Now, a *yoga sadhaka* is ready for advanced internal yoga practice.
6. ***Dharana* (Holding):** Concentrate on one object, place or idea for brief time. It will quieten your mind. It will stop wandering.
7. ***Dhyana* (Meditation):** It is prolonged holding. You fully immerse yourself in meditation. It becomes part of your consciousness. Different religions have developed their own version of meditation. Jaimini's *Peksha Dhyan*, Buddhism's *Vipassana* and Zen meditation, Sikhism's Japoji Dhyans and Islam's *Namaz* (*dhikr* and *muragbah*) and Sufism musical meditations are such examples.

8. ***Samadhi* (Trance):** This is ultimate state of consciousness in which object of *dhyana*, doer of *dhyana* and *dhyana* itself will disappear. Then spiritual enlightenment is attained. You realize your true *anandaswarupa*. It is beyond verbal description. Markandeya Purana's *Satiaj Samadhi* was popularized by Nirmak Mataji Adi Guru Shankara also talked about *autosamadhi*. Advanced Antaranga Yoga can be performed by an evolved yogi under guidance and supervision of a competent yoga guru.

5.5 HATHA YOGA

Hatha Yogis are found in Guru Gorakhnath's Nath Sect (1100 A.D.). *Ha* means Sun and *Tha* means Moon. Sun relates to soul and Moon relates to mind. Hatha Yogi selects tough *asana* like Padmasana with tough movements of body and breathing exercises. That is why it is called Hatha Yoga. It is discipline of force aimed at awakening dormant *Shakti* for attainment of *Shiva*. Total 12 *asanas* are performed in fluid movement. Shakti awakens in 7 C*hakras* (See Appendix 1). Consciousness lies in five *koshas*/sheaths (See Appendix 2).

5.6 ASHTANGA VINYAS YOGA

In 1948, at Mysore, K. Pattabhi Jois, a disciple of Vamana Rishi, propagated Ashtanga Vinyas Yoga. It is dynamic form of Hatha Yoga taught by T. Krishnamachari to Jois. The style is energizing and synchronizing breath with movements. *Asanas* are also linked to flowing movements. It is also known as Mysore style of Yoga. This yoga starts with five-time repetition of Surya Namaskar, starts with prayer to Patanjali Maharishi and ends with *mangalacharana*.

It has three sequential parts:

1. Primary part for new entrants – Yoga therapy and *Asanas* for specific disease cure.
2. Intermediate part for nerves purification.
3. Advanced part for stable part concentration – A, B and C. Then D series meant for *Rishis* only.

Principles of Ashtanga Vinyas Yoga: There are five principles of Ashtanga Vinyas Yoga:

1. ***Tristhana*:** Concentrate action or attention on three parts while posing and *vinyasa* (system of breathing and movement).
2. ***Vinyasa*:** Flowing sequence of movements connected with sequence of *asanas* with breath coordination. Its object is to purify blood contaminated or heated due to *asanas*.
3. **Breath:** Steady and even flow of inhalation and exhalation of breath. Each pose be kept for 5 breath movements. It may be gradually increased.
4. ***Bandhas*:** *Mood bandha*, *Udyan bandha* and *Jalandhar bandha* or combined *Tribandha* done.
5. **Prayer or Chant:** Patanjali *Maharishis* praise sung in the beginning and *Mangalacharana* sung in the end.

5.7 COMPARISON BETWEEN DIFFERENT YOGA SYSTEMS

Ashtanga Yoga concentrates on Brahman whereas Hatha Yoga on body and energy – *Shiva* and *Shakti*. Hatha Yoga concentrates on mindfulness, breath, posture and meditation. Ashtanga Yoga focuses on ethics, muscle training, breath and withdrawal leading to internal yoga up to *Samadhi*.

Hatha Yoga is meant for beginners. Internal Ashtanga Yoga is meant only for evolved yogis. Vinyas Yoga is physically demanding and runs risk of body injury. Hatha Yoga develops mental focus and connects body, mind and soul – *Shiva* and *Shakti*. Ashtanga Yoga purifies body and mind to prepare for more challenging internal yoga to unite soul with *Brahman*. Vinyasa Yoga aims at body-mind-breath unity for deeper awareness.

Swami Ramdev has given global popularity to Ashtanga Yoga. Shri Shri Ravi Shankara has made *Sudarshan Kriya* a global brand. Vinyas Yoga is also becoming popular in foreign countries. Zudo Yoga in USA is based on Vinyas Yoga. This type of yoga runs high risk of injury. 62% respondents reported at least one injury – knee pain and back pain which lasted for over one month.

5.8 COMPARISON BETWEEN YOGA AND OTHER VEDIC PHILOSOPHIES

Patanjali's Yoga philosophy is an extension of *Sankhya* Philosophy of Kapila Muni. Sankhya has no concept of God whereas Yoga Philosophy has concept of *Brahman*. Both believe in *Moksha*. *Sankhya* believes that *Purusha* attains *Moksha* when freed from *Prakriti*. But Yoga unites soul with *Brahman* through Ashtanga Yoga practice. No such practice exists in *Sankhya*.

Vedanta Philosophy of Ved Vyasa and *Gita* have contributed to refinement of Yoga. Shri Krishna emphasized on clean and peaceful place for yoga, use of seat which is made of material bad conductor of energy and regulated food and sleep in *yogi*'s life. Yoga helps us in attaining excellence in our *Karma*/duty (*Yogah Karma Su Kaushalam).* Thus, various philosophies have difference and connectivity both.

5.9 APPLICATIONS OF YOGA PHILOSOPHY

Yoga philosophy and Ashtanga Yoga have so many applications. A few outstanding examples are:

1. Cure of disease through yoga therapy.
2. Prevention of disease through *asanas* and *pranayamas* (stress released and concentration increased.)
3. Hatha Yoga for *Shakti* and *Shiva* combination to awaken consciousness and energy.
4. *Pratyahara*, *Dharna*, *Dhyana* and *Samadhi* for enlightenment and unity of soul with *Brahman*.
5. Attain *Moksha* or Salvation.
6. Application for Athletes, Dancers and Army Training.

7. Ashtanga Yoga helps in improvement of emotional quotient, very essential to enable managers to take even tough decisions. They become free from stress. Enjoy better sleep and better health. Most of the companies throughout the world have adopted yoga as part of Executive Health Programmers. This is managerial application of yoga. (Also see Appendix 3).
8. The UNO has accepted yoga and declared World Yoga Day on 21st June every year. Almost all religions apply yoga in one form or other.

Patanjali Yogapeeth, Haridwar and Shri Shri Ravi Shankara's Yoga Universities at Mysore and Bengaluru are conducting training and research in yoga. Vadodara's B.V. Purohit's Centre of Yoga *Asana* Therapy is also doing useful work in cure of diseases.

5.10 EMERGING HEALTH AND WELLNESS ISSUES IN DIGITAL SOCIETY

Digital technology is a good help to people. It is a good servant but bad master. Excess use of mobile and internet, most time spent on social media, etc. creates health and family/society disconnect and conflict problems. Individual health will be spoilt due to excess exposure to radiation, less sleep, more irritation, loss of hearing, eyesight problem, mental stress, ankle disease, etc. Family disconnect between old and new generation is spoiling relationships. Youth is so occupied on net that they feel irritated when asked to do any other work or asked to attend a social event at some relative's or friend's place. Mothers ignore our child being busy with net.

New health and wellness issues are emerging in digital society. Perhaps, yoga may provide solution to it. But whether youth will be able to spare time for yoga practice? Start with observing at least one day in a week with fast of net.

5.11 SUMMARY

Yoga Philosophy was invented by Maharishi Patanjali in 2nd century B.C. He wrote '*Yoga Sutras*' and '*Raj Yoga*'. UNO has adopted broad concept of Health – Physically, Mental, Spiritual and Social Health. It has issued guidelines for member countries. Health and Wellness are declared as fundamental rights of all people. State and Government's liability is fixed. Awareness and cooperation of public also emphasized. Yoga Philosophy of Maharishi Patanjali follows holistic concept of ethics, healthy body, mind, intellect and soul. Ashtanga Yoga has 8 steps or parts – *Yama*, *Niyama*, *Asana*, *Pranayama*, *Pratyahara*, *Dharana*, *Dhyana* and *Samadhi*. Also, there are some variants such as Hatha Yoga and Ashtanga Vinyas Yoga. There are some differences in each type of yoga. Yoga Philosophy and other Vedic Philosophies also have some similarities and differences. Yoga has practical applications in life. UNO has recognized Yoga, and World Yoga Day celebration on 21st June every year is announced. Digital society has several emerging health and wellness. Yoga may tackle psychology issues.

5.12 KEYWORDS

Health, Wellness, Yoga Philosophy, Ashtanga Yoga, Hatha Yoga, Ashtanga Vinyas Yoga, Digital Society.

5.13 EXPECTED LEARNING OUTCOMES

Better health, wellness, emotional stability of managers and other people with the help of yoga practice.

5.14 SELF-TEST QUESTIONS

1. Define health and wellness.
2. Describe WHO Guidelines on Health.
3. Describe Roger University, USA's five-dimension health, wellness and psychology concept.
4. Describe Yoga Philosophy of Maharishi Patanjali. Compare it with *Sankhya* and *Vedanta* Philosophies.
5. What are sources of Yoga Philosophy?
6. Describe Ashtanga Yoga of Maharishi Patanjali.
7. Describe Hatha Yoga practice by Guru Gorakhnath Sect yogis.
8. Describe Ashtanga Vinyas Yoga.
9. Compare different type of yoga practices.
10. What is practical application of Yoga? How Yoga is secular?
11. Describe *Bhagwadgita*'s contribution in yoga.
12. Describe health, wellness and psychology challenges of digital society.
13. Describe *Chakras* and *Koshas* in human body.
14. Write short notes on:
    (a) Yoga *asana* therapy for body
    (b) Yoga *pranayama* therapy for body and mind
    (c) Yoga meditation therapy for mind and soul
    (d) *Pratyahara*
    (e) *Samadhi* (Trance)
15. Write short notes on:
    (a) Yoga Philosophy
    (b) Ashtanga Yoga
    (c) Ashtanga Vinyas Yoga
    (d) Hatha Yoga
16. Select only correct answer out of four options in the following MCQs:
    (i) Author of Yoga Sutra is:
        (a) Patanjali Maharishi
        (b) Kapila Muni

(c) Ved Vyasa
(d) Guru Gorakhnath

(ii) *Yoga Sutra* is believed to date back to:
(a) 200 B.C.
(b) 200 A.D.
(c) 11th century A.D.
(d) 300 B.C.

(iii) *Raj Yoga*'s (200 B.C.) author is:
(a) Shri Krishna
(b) Ved Vyasa
(c) Maharishi Patanjali
(d) None of the above

(iv) WHO's concept of health includes:
(a) Body
(b) Mind
(c) Society
(d) All of the above

(v) Roger University, USA's concept of health and wellness has how many dimensions?
(a) 1
(b) 2
(c) 3
(d) 5

(vi) Which one is *Yama*?
(a) Purity
(b) Contentment
(c) Surrender before God
(d) Non-violence

(vii) Which one is *Niyama*?
(a) Truth
(b) Non-violence
(c) *Svadhyaya*
(d) No theft

(viii) Ashtanga Yoga has how many asanas?
(a) 41
(b) 12

(c) 4

(d) 1

(ix) Hatha Yoga has how many asanas?

(a) 12

(b) 4

(c) 2

(d) Nil

(x) Identify a type of *Pranayama* from the following:

(a) Truth

(b) Contentment

(c) Lotus Posture

(d) *Ujjai*

(xi) Which meditation is practiced in Islam?

(a) *Preksha Dhyana*

(b) *Vaipassana Dhyana*

(c) *Dhikr*

(d) *Japoji*

(xii) Number of Sheaths/*Koshas* in our body is:

(a) 5

(b) 4

(c) 7

(d) 2

(xiii) Sheaths/*Koshas* relate to:

(a) Energy

(b) Consciousness

(c) Body

(d) None of the above

(xiv) *Chakras* relate to:

(a) Energy points

(b) Consciousness

(c) Soul

(d) Mind

(xv) Enlightenment is attained at:

(a) *Pranamaya Kosha*

(b) *Annamaya Kosha*

(c) *Sahastrar Chakra*

(d) *Sahaj Asana*

(xvi) Ashtanga Vinyas Yoga was started in:

(a) 200 B.C.

(b) 1948

(c) 1100 A.D.

(d) 2008

(xvii) Risk of injury is more in:

(a) Ashtanga Yoga

(b) Hatha Yoga

(c) Ashtanga Vinyas Yoga

(d) *Sahaj Samadhi*

(xviii) Which Vedic Philosophy is atheist?

(a) Yoga Philosophy

(b) *Vedanta* Philosophy

(c) *Nyaya P*hilosophy

(d) *Sankhya* Philosophy

(xix) *Yoga Sutra*'s English version by Dr. Shyam Ranganathan was published by Penguin Books Ltd. in:

(a) 1948

(b) 2008

(c) 1960

(d) None of the above

(xx) *Pratyahara* prepares a *Sadhaka* for:

(a) External Yoga

(b) Internal Yoga

(c) Sleep

(d) Work

Key to Multiple Choice Questions

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
(a)	(a)	(c)	(d)	(d)	(d)	(c)	(a)	(a)	(d)
(xi)	(xii)	(xiii)	(xiv)	(xv)	(xvi)	(xvii)	(xviii)	(xix)	(xx)
(c)	(a)	(b)	(a)	(c)	(b)	(c)	(d)	(b)	(b)

5.15 APPENDICES

Appendix – 1

Energy Points (*Chakras*)

Human body has the following *Chakras* or energy points:

1. ***Muldhar Chakra*** at bottom of back bone. Holds body balance energy.
2. ***Svadhishthan Chakra*** between naval and penis. Energy *Chakra* for vital sex organs.
3. ***Manipura Chakra*** at naval centre. Energy point for the whole body.
4. ***Anahat Chakra*** near heart. Energy point for heart and its arteries' blood circulation.
5. ***Vishuddhi Chakra*** at neck (*Kantha*). Energy point for purification of voice chord.
6. ***Ajna Chakra*** between two eyebrows. *Tilak* energies this energy point for intellect and foresight (sixth sense).
7. ***Sahastrar Chakra*** at soft top of our scalp. Energy point for enlightenment. Way to *Vaikuntha*. *Moksha* door.

Appendix – 2

Five Sheaths/*Koshas*

Human body has five *Koshas* or Sheaths which represent level of consciousness.

At the bottom level of belly, there is *Annamaya Kosha*. For life, this has to join *Pranamaya Kosha* above it. For death, *Pranamaya Kosha* disconnects form *Annamaya Kosha*. In addition to *Prana*, there are *apana*, *vyana*, *udana* and *samana prana*. First five loaves of meal be offered to these five main *Pranas* with purity and *mantra* chanting like *Om Pranaya Svaha*, *Om Apanaya Svaha*, *Om Vyanaya Svaha*, *Om Udanaya Svaha* and *Om Samanaya Svaha*.

This libations are offered to our five main *pranas* for charging consciousness of *Pranamaya Kosha*. Then libations be offered to our *Jathragani* (Belly fire), the power of digestion of what food we eat. First offer food to God and offer libations of *Prasada* to *Pranas*. Then you eat meal silently and peacefully.

As *prana* resides in *anna* (food) in *Kaliyuga*, we should welcome our food with gratitude to *Brahmana* (*Anna Brahmana*). Feet, hands and mouth be washed by clean water. Take *achman* of some pure water be sprinkled on food as water is protection cover against any pollution or contamination.

Sit silently and peacefully on floor on an *asana* made of material bad conductor of energy. Then take meals silently, very calmly and slowly chewing well. Take about 30 minutes and touch your sense organs with wet hands. Never allow food to be wasted. Don't drink cold water after meals. Take water after one-and-a-half hour of finishing meals. It should be normal or lukewarm water.

Annamaya Kosha must give you energy and consciousness of *Prana Shakti* consciousness also. It should not cause sleeplessness and idleness in you. Take only *Satvik* food. Avoid spicy, hot, stale and junk food which may spoil your health.

This is about *Sadhana* of *Annamaya* and *Pranamaya Kosha*.

***Manomaya Kosha*:** Change it with control of mind. Make your mind free of 6 vices – *kama*, *krodha*, *lobha*, *moha*, *dvesha*, ego, etc. Make it stable. Remember, who wins own mind can win the whole world.

***Vigyanmaya Kosha*:** Charge your pure intellect *prana* to take good decision by *Svadhyaya*, *Satsanga*, contemplation or purpose of life and ethical life.

***Anandamaya Kosha*:** This is top level of consciousness which can be person with broad mind and large heart. They do *karma* not for self but for well-being of all beings.

Lowest level of consciousness is *Annamaya Kosha* where one lives to eat. When he becomes aware of *Pranamaya Kosha*, he eats to live.

Middle level of consciousness is *Manomaya Kosha*. It is awakened when one has self-control of mind. A pure and stable mind is essential to go to higher level of consciousness.

Vigyanmaya Kosha is higher level of consciousness where pure intellect (*Pragya*) awakens wisdom, the power to discriminate between what is wrong and right. One chooses what is right. This makes him fit to move to the highest level of consciousness, the *Anandamaya Kosha*. Here, enlightenment and self-realization happens and top purpose of *Moksha* is attained.

Mostly, people live at *Annamaya Kosha* level and *Manomaya Kosha* level. They are subjected to bondage of rebirth. Immortality can be attained by mortal being only by attaining self-control of mind and senses and living at the highest level of consciousness, i.e., *Anandamaya Kosha*. Very few very blessed reach that level.

Four Dimensions of Health

1. Physical body health
2. Mental and emotional health
3. Intellectual heath
4. Spiritual health

Yoga cares for all the four dimensions of human health, wellness, and psychology and philosophy.

Appendix – 3

Yoga for Manager's Emotional Intelligence

The acute problem of stress and related sickness among corporate executive has engaged attention world over. About 95% of top leaders fail to sleep in night naturally. About 2/3rd of their subordinates are not happy with own boss, peers or colleagues. Pressure of long working hours and unreasonable target have increased stress and anxiety leading to serious health issues. In USA, 80% Americans are stressed about own jobs. Several industries are suffering from high attrition rates and low productivity. About deadly sickness among corporate executives, a recent experience has been reported by a leading hospital in Mumbai.

From one company, 37 executives were sent for heath check-up. 14 of them were found to have abdominal problems, 7 had problems related to upper respiratory track, and 16 of them had cardiac and other complaints. None was found OK. Reason responsible for sickness was the aggression to stay afloat in tough competitive environment, uncertain and volatile business environment.

The Western Management Education is also a culprit. It trains executive to be competitive and provides complex theories based solutions for even simple problems, need for multi-tasking, extended office hours and taking work to home causing work-life imbalance.

Most corporates are turning to workplace yoga for following specific benefits:

1. Higher capacity to cope with stress and anxiety.
2. Improved focus by preventing external distractions.
3. Improved Emotional Intelligence to enable capacity to take difficult decisions and execute them without a wavering mind.
4. Improved performance/productivity adding to bottom line rise.
5. Reduced cost of paid sick leave and medical treatment adding to improve bottom line.
6. Reduced stress, anxiety, physical and mental sickness. It prolongs lifespan of executives.
7. Improved creativity at workplace. Better interpersonal relations at workplace.
8. Improved energy level of executives.
9. Save cost of high attrition rate of employees.

Yoga leads to fast economic development through better work-life balance – physical and psychological well-being at office and home both.

Several CEOs have admitted in Forbes Magazine that yoga made them better CEOs. Blessed are the flexible, for they shall not be bent out of shape.

Shri Shri Ravi Shankara has made an apt remark about yoga, "Like a flower bud, human life has the potential to blossom fully. Blossoming of human potential is yoga."

Now, yoga has become a big business. India can be benefitted by creation of global destination in India, and also preparing Yoga book and competent yoga trainers for global market.

There is a breaking news – Y-break. Government of India has introduced 5 minutes' break in its offices for its officers and employees for doing select *asanas*, *pranayama* and meditation for release of stress and recharge of energy. The Department of Personnel and Training (DOPT) has issued this order on September 02, 2022 to download the Y-break App on Android and practice it. This App may be shared with State Government offices, autonomous body offices and also with corporate offices in the private sector. It will spread yoga practice sitting in chair. No need to go personally to yoga centres. Lot of time and money will be saved.

This App has been developed by yoga experts in collaboration with the Morarji Desai National Institute of Naturopathy, Pune.

5.16 REFERENCES AND FURTHER READINGS

1. *Charaka Samhita*, Amazon.
2, *Traditional Food Recipes from Ayush Systems*, Ministry of Ayush, Government of India, 2022.
3. *G20 Primer on Traditional Medicine*, 2023.

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Chapter 6

AYURVEDA

Learning Outcomes

1. To know ancient India's cultural heritage in Ayurveda and feel proud of it
2. To know about Ayurveda
3. To know about the founders of Ayurveda
4. To know about Ayurvedic diet based on *Tri-dosha* for good health
5. To know about age factor and season factor impact on *Tri-dosha* and Ayurvedic Diet
6. To know and, understand benefits and limitations of Ayurvedic Diet
7. To understand Charak's principles of Ayurvedic Diet

Structure

6.1 Ayurveda – Definition of Health
6.2 Founders of Ayurveda
6.3 Tri-dosha – Relationship to Health
6.4 Ayurvedic Diet Plan
6.5 *Rasas* (Tastes)
6.6 Impact of Time and Seasons on Ayurvedic Diet
6.7 Impact of Age Factor on Ayurvedic Diet
6.8 Benefits and Limitations of Ayurvedic Diet
6.9 Charak's Principles of Ayurvedic Diet
6.10 Summary
6.11 Keywords
6.12 Expected Learning Outcomes

6.13 Self-test Questions
6.14 Appendices
6.15 References and Further Readings

6.1 AYURVEDA – DEFINITION OF HEALTH

The word 'Ayurveda' is a combination of two words – *Ayu* means life and *Veda* means knowledge. Therefore, Ayurveda means knowledge of life.

Ayurveda is *Upa Veda* of Rigveda. It is as old as Rigveda. Purvamimansa of Rishi Jaimini deals with *yajna* rituals. These contain several secrets of Ayurvedic herbs such as medicines, environment purifiers and beauty aids.

Ayurveda is a natural system of medicine. It has *Siddha* medicine system, including *Rasayana* for rejuvenation. Ayurveda believes that the main cause of disease is an imbalance in three *doshas – Pitta*, *Vata* and *Kapha*. Ayurveda encourages certain food, discipline, lifestyle interventions, yoga and natural therapies to prevent imbalance in three *doshas* or restore balance in three *doshas*.

Ayurvedic treatment starts with examination of *Nadis* (nervous system) to determine dominant nature of the patient and extent of imbalance in *Tri-doshas*. Then internal purification process (detoxification) is introduced. It is followed by dietary, regimen, herbal remedies, massage therapy, yoga therapy, *siddha* therapy, *mudra*, acupressure, etc. to restore balance in *tri-doshas*.

The concept of universal interconnectedness, the body's nature and life forces (*tri-doshas*) are the primary bases of Ayurvedic treatment. Ayurveda aims at eliminating impurities and imbalances of *doshas*, improving immunity (resistance to disease), worry, anxiety, stress, etc. and increasing peace and harmony, vitality, etc.

Ayurveda is a form of ancient or traditional system of medicine of India. It seeks to treat and integrate body, mind and soul using a comprehensive, holistic approach, especially in prescribing diet, herbal remedies, exercise, meditation, breathing exercise and physical *asana* therapy.

Ayurveda as noun is a 6000 years' old system of traditional medicine of India. It is a type of alternative medicine that was perceived by divines, Vedic *rishis* which was conceived and evolved independent of Western medicine (Allopathy, Homeopathy, etc.) which came later on. The word Ayurvedic is used as an adjective. Ayurveda practitioner is called '*Vaidya*'.

6.2 FOUNDERS OF AYURVEDA

Divine *Vridyas* were *Ashvinikumaras*. God of Ayurveda is Dhanwantari who appeared from Ksheer Sagar at the end of sea churning jointly by *devas* and *asuras*. Bhagwan Dhanwantari appeared with an urn containing nectar. This event is celebrated on Kartika Krishna 13th Tithi (Dhanteras) as part of Diwali festival celebration. Dhanwantari incarnated in human form in royal family of Kashi. He became its king. Then he had promoted Ayurveda in Kashi.

Maharishi Charaka is considered as father of Ayurveda medicine. He authored his seminal book 'Charaka Samhita' in 800 B.C. This *grantha* was jointly complied by Atreya, the *Guru* and Agnivesha, his disciple.

Maharishi Sushruta is considered as father of Ayurveda surgery. He invented cataract and plastic surgery. He lived in 800 B.C. in India. He developed 8 different types of 300 surgical procedures even without any system of Anaesthesia. These 8 types of surgery were *Chedana* (Excision), *Bhedana* (Incision), *Lekhana* (Scraping), *Eshana* (Probing), *Aharana* (Extraction), *Vedhana* (Puncturing) and *Seevana* (Suturing). He also designed 120 surgical instruments. He authored his seminal book, "*Sushruta Samhita*". Now, western world is paying attention to *Charak Samhita* and *Sushrut Samhita*.

Sage Agastya is considered as father of *Siddha* medicine. It believes that human body has 8 supernatural powers for healing. Herbs, fruits, metals and chemical components based on research are used as medicines in *Siddha* practice. It is still in use.

Sage Patanjali is father of Ashtanga Yoga Therapy. His book 'Patanjali Yoga Sutras' is very famous. Ashtanga Yoga is famous worldwide. The UNO has recognized Yoga and declared 21st June as World Yoga Day.

The Government of India led by Prime Minister Modi deserves credit for global recognition of Yoga through UNO. In the same way, he is trying for Ayurveda's global recognition through UNO's WHO (World Health Organization). Gujarat Ayurveda University, Jamnagar and WHO jointly and Swami Ramdev's Patanjali Ayurveda are doing scientific research in Ayurveda and Yoga. About 14 countries have already recognized Ayurveda.

Maharishi Vagbhatta lived in India before about 3000 years. He experimented *Charaka Sutras* on his own body and then formulated '*Vagbhatta Sutras*' which are very useful for our life. Late Shri Rajiva Dixit popularized these *sutras*. Vagbhatta Maharishi remained healthy by body, mind and soul throughout his life by living his life as per Charaka's principles of Ayurvedic food/diet. We may also be benefited by living our life as per Charaka's principles and *Vagbhatta Sutras* for Ayurvedic diet/food.

Chyavan Rishi invented *Chyavan Prasha*, a *rasayana* for anti-ageing. It is a very popular tonic in India and abroad.

6.3 TRI-DOSHA – RELATIONSHIP TO HEALTH

Our human body is constituted by five major elements (*Panch Mahabutas*) – Earth, Water, Air, Fire and Ether (Sky). Their different combination forms three *doshas*/nature – *Pitta* (Fire and Water), *Vata* (Air and Space) and *Kapha* (Earth and Water). Every human body has these three *doshas*. If all the three are in balance, then health will be good and a human will be free from disease. Their imbalance is the cause of diseases. Treatment focuses on restoration of balance in three *doshas*.

Every human has one dominant nature – *Pitta Prakriti*, or *Vata Prakriti*, or *Kapha Prakriti*. Nature of an individual can be determined in two ways – (1) Examination of *Nadis* or nerves by an expert *Nadi Vaidya* and (2) Some body and mind indicators as given below.

- ***Pitta*:** Intelligent, hardworking and decisive. Medium physique. Short temper, conflicting. Health problems related to digestion and heart, blood pressure due to imbalance.
- ***Vata*:** Creative, energetic and lively. Thin body and light weight. Health problems faced due to imbalance are related to digestion, fatigue, anxiety, knee pain and movement (circulation) problem.
- ***Kapha*:** Calm, loyal and reliable. Sturdy body. Health problems are related to weight gain (obesity) and upper respiratory track (asthma, cough, bronchitis, diabetes, depression due to imbalance). If *Vaidya* is not expert of *Nadis*; examination and nature is determined by subjective indicators, then there are chances of error. There is no objective technique for determining dominant nature of an individual.

6.4 AYURVEDIC DIET PLAN

It is based on dominant nature or *dosha* of an individual. If prescribes what, when and how much to eat preferably, what foods intakes are to be minimized and what food items to be avoided. It is known as *pathya* (beneficial food) and *kupathya* (harmful or prohibited food). A few items of food are banned in general irrespective of dominant nature of an individual balance or imbalance of three *doshas*. Let us remember the following major *doshas* relate Ayurvedic Diet Management Plan:

- ***Pitta*:** Prefer to eat cooling, energizing foods. Minimize intake of spices, nuts and seeds in food or avoid them.
- ***Vata*:** Prefer warm, moist and grounding foods. Minimize intake or avoid dry fruits, bitter herbs and raw vegetables.
- ***Kapha*:** Prefer to eat fruits, vegetables and some legumes. Minimize or avoid heavy foods like nuts, seeds and certain legumes. General prohibition for all persons. Avoid red meat, artificial sweeteners, too spicy food, stale food, junk food like pizza and burgers, overeating, eating before proper digestion of already eaten food, overdrinking of alcohol, aerated cold drink, refined oils, maida, sea salt, crystal sugar, packaged food containing salts, sweeteners and preservative chemicals of harmful nature.

Eating whole fresh and simple food be preferred. Use rock salt and drink fresh potable drinking water. Ayurveda believes every root has medicinal properties. No food is good or bad in itself. Our dominant nature/*dosha* makes it good or bad. It is logical to take balance diet for optimum nutrition by formulating harmonious food groups which induce proper digestion and promise optimum absorption of essential nutrients, vitamins, minerals, proteins, etc. Healthy food is one that promotes health of physical body, mind and soul.

6.5 *RASAS* (TASTES)

There are following six *rasas*:

1. Sweet (*Madhura*)
2. Sour (*Amla*/acidic)
3. Salt (*Lavana*)

4. Pepper
5. Bitter (*Tikta*)
6. Astringent (*Kasaya*)

Items to illustrate are sweet is jaggery, honey, etc. Sour means *Khatta*, e.g., lemon. Salt means sea water salt, Sambhar lake salt, rock salt, etc. Pungent (*Tikta*) like Patna red chillies and black pepper. Bitter (*katu*/*kada*) like karela, neem, etc. Astringent (*Kasaya*) like unripe fruit, turmeric, etc.

Consumption of *Rasa* individually is better than combination of different *rasas*. Some *rasas* are anti (*Viruddha*) and therefore must be avoided as contrary foods. For example, banana, papaya with milk or mango with milk be avoided. Honey and Ghee in equal proportion becomes poison. It can be taken only in unequal proportion. Milk cannot be taken with sour or salted food, pickles, etc. It may cause skin disease.

Each of 6 *rasas* or tastes is received on different anatomical locations on the tongue and corresponding specific digestive organs of metabolites. Thus, sense of sweet is perceived by the tip of the tongue and is related to corresponding organs, thyroid glands and apical areas of lungs. Pungent relates to pancreas, liver and spleen. Astringent to the colon, sour to lungs and salt to kidneys.

If a *rasa* is consumed in appropriate quantity and quality, then it provides nourishment. Thus, sweet promotes life as a whole, provides overs all strength, adds luster to skin, and is beneficial for throat as per *Charak Samhita*. However, its excessive use will aggravate *kapha dosha*, increase obesity and worsen diabetes.

Sour taste stimulates *jatharagni* or digestive power, provides energy, awakens the mind and stimulates salivation. Excessive use will cause heartburn, indigestion and water retention. Salt is heavy and oily. If consumed in moderation, then it acts as antispasmodic, promotes energy and helps in maintaining water and electrolyte balance. Its excess use increases water retention and swelling, rise in blood pressure and induces vomit. Use of rock salt is recommended due to its mineral content. Moderate consumption of pungent *rasa* improves digestion absorption and cleansing of sinuses, aids in circulation, and helps in elimination. It acts as blood thinner and aids to vitality and vigour of human body. However, excessive use may cause sterility, fatigue and thrust rise. Bitter foods like turmeric, ginger, black pepper, aloevera, fenugreek, etc. stimulate all other tastes. They act as antipyretic, tone up the pancreas to reduce diabetics, and reduce fat. Excess use of it will cause dizziness. Astringent *rasas* like unripe banana, pomegranate and chickpea help in absorption and binding. But excess use of it will induce griping, constipation and blood coagulation.

Anti-rasa, when taken in combination, will cause indigestion, flatulence, acidity increase and formation of toxin in the body. Complimentary *rasa* combination can be promoted for better health. Thus, Ayurveda food and diet are based on harmonious combination of *rasas* and appropriate quantity consumption for good health. Certain *rasas* are to be avoided in specific dose increase or existing diseases condition. For example, sweet to be avoided in diabetes and salt in case of blood pressure. Ayurvedic diet is prepared or cooked with proper use of spices which makes it tasty.

There are turmeric, jeera, ajwain, hing, salt, black pepper, clove, etc. *Rasas* are linked to seasons also. For example, sweet, pungent and bitter to winter; cold to summer; and heavy food in daytime to produce working efficiency against idleness, sleep, sloath, etc.

1. Eating whole food like fruits, vegetables, grains and legumes are good for health of body, mind and soul. Mindfulness is felt and happiness is experienced.
2. Minimization of processed and junk food which lack fiber, vitamins and minerals and contain salts, artificial sweeteners, preservatives and chemicals harmful for health protects health and wealth both.
3. Ayurvedic diet protects and promotes good health and gives long life. More research-based evidences are needed to prove this claim.
4. Research has proved that Ayurvedic diet with yoga practices promotes weight loss.
5. Mindfulness while eating whole food prevents mental distraction. It reduces weight, stress, depression and binge eating. It promotes self-control and healthy relationship food. Overall physical, mental and spiritual health is improved.

6.6 IMPACT OF TIME AND SEASONS ON AYURVEDIC DIET

Morning time need breakfast. Take breakfast like a king. Take lunch like a common and dinner as a pauper. Ayurveda has no concept of breakfast and afternoon snacks. Take meal before noon, preferably 9 A.M. to 10 A.M. Take evening meals before sunset. No tea, coffee and snacks either before or after meals. Take light food in the evening for better sleep. Avoid food linked to that dosha with which seasons are linked.

Thus, summer is *Pitta* season, Winter is *Kapha* season and Monsoon season is *Vata* season. Take anti-season nature food for balancing. Autumn represents vata for cold and crisp days. Spring is *Kapha* season. Morning time is *Kapha* time, noon 2 P.M. is *Pitta* time and evening is *Vata* time. Take food opposite to that *dosha*.

6.7 IMPACT OF AGE FACTOR ON AYURVEDIC DIET

In childhood, *Kapha*; in youth, *Pitta*; and in the old age, *Vata* dominates. Anti-dosha diet be taken for balancing during the period of that age. Growing body needs more energy, protein, crabs, minerals, etc. Youth needs *raga-guni* diet and old age needs *anti-vata* diet.

6.8 BENEFITS AND LIMITATIONS OF AYURVEDIC DIET

Major benefits of Ayurvedic Diet are given hereunder:

1. Eating whole food like fruits, vegetable, grains and legumes are good for health of body, mind and soul. Mindfulness is felt and happiness is experienced.
2. Minimization of processed and junk food which lack fibre, vitamins and minerals and contain salts, artificial sweeteners, preservatives and chemicals harmonized for health protects health and wealth both.
3. Ayurvedic diet protects and promotes good health and gives long life. More research-based evidences are needed to prove this claim.

4. Research has proved that Ayurvedic diet with yoga practices promotes weight loss.
5. Mindfulness while eating whole food prevents mental distraction. It reduces weight, stress, depression and binge eating. It promotes self-control and healthy relationship food. Overall physical, mental and spiritual health is improved.

Limitations of Ayurvedic Diet are listed below:

1. Identifying dominant *dosha* nature objectively is not possible. If subjective determination goes wrong, the whole diet plain will fail.
2. Impact of seasons and age intervenes dominant *dosha* theory. Selection of preferred items correctly is a big challenge. Sometimes, it is confusing and irritating.
3. Avoiding prohibited food and diet for long puts one's spirit of self-control and discipline to critical test. Feeling of stress due to too long deprival may develop, especially in case of addictions and overeating, if chance comes.
4. There is no guarantee that preferred food items are free from contamination due to use of synthetic chemicals for ripening and preservation. Food safety standards exist in law only but not in practice in India.
5. More scientific researches are needed to prove claims made for Ayurvedic Diet.

6.9 CHARAK'S PRINCIPLES OF AYURVEDIC DIET

Charaka Maharishi and Maharishi Vagbhatta have laid down certain principles of Ayurvedic Diet. A few major principles are briefly described here.

1. **When diet is wrong, medicine will be of no use:** Medicine, herbal or *siddha* and yoga will be effective only when your diet is right. Don't eat what is prohibited for you during treatment. If you don't follow *pathya-kupathya* regimes prescribed by a *Vaidya*, then money spent on treatment will go waste.
2. **When diet is right, medicine will not be needed:** When your diet is right, you will normally not fall sick. You will enjoy good health – physical, mental and soul. Diet must be right on three counts:
   - **(a)** ***Hitbhuk*:** Eat only that what is beneficial to you as per your *dosha prakriti*. It should keep *tri-doshas* in balance. Only beneficial *rasas* be consumed in appropriate quantity. Prohibited food and *rasas*, contrary nature food and *rasas* be avoided.
   - **(b)** ***Mitabhuk*:** Consume food and *rasas* in reasonable quantity only. Avoid excess quantity consumption of any food and *rasas*. Overeating is bad for health. Only 50% space in belly be filled by solid food and 25% space by liquids. Keep 25% space in belly reserved for air circulations. Overeating leads to obesity, gastric problems, diabetes, heart problem, acidity, etc. Medical care cost will go up and loss of working efficiency may reduce income-earning capacity.
   - **(c) Eat what is preferred as per the season:** For example, in summer, light and cold food is good. Avoid hot and too spicy food. In winter, rich diet can be taken when digestion fire is strong. During monsoon season, prefer warm and fresh food and avoid cold and stale food. Also, select *rasas* as per the season.

3. **Anna is medicine:** Every anna (corn) has medicinal property. Even plant food has medicinal value. Consume anna as per your body nature, time, age and season. Avoid anti-nature combinations of anna, plants and *rasas*.
4. **Eat food/diet only when you feel hunger:** If earlier intake of food is not properly digested, then avoid or skip taking diet. Indigestion can be cured by skipping food or diet and drinking more water. In Ayurveda, langhanam (fasting) is also a medicine. For increasing appetite, treat acidity and gastric by use of jeera, ginger, lemon, black pepper and pudina mixed lime water.
5. **Annam Brahm:** Treat food as Brahman. Welcome it. Pay respect to it. First offer to God with prayer of gratitude. With purity of body, peaceful mind, eat silently and slowly (chew well) with total concentration your *prasadam*. Never leave *anna*. In *Kaliyuga*, our prana lives in *anna*. Avoid eating food with contempt, anger and hurry or seeing TV, taking on mobile, or arguing with wife or any other member in family. Better sit on earth cross legged on an *asana* made of a material that is bad conductor of energy. Drink warm or simple water only after 90 minutes of eating food. In no case, *anna* be wasted.
6. **Keep *Jatharagani* (belly fire) good:** When digestion is good, the food digested will give 'OJAS' (life essence) adequately to body, mind and soul. But when digestion is poor or disturbed, it leads to formation of *ama* (toxins) deposits in digestive track. Body and mind will get disturbed due to gas, acidity, constipation, loose motions, skin problem, allergy, brain fog, low immunity, weakness, etc.

Food consumed must give ojas, energy, muscle and bone strength, virya, dhatu nourishment to body, peace to mind and experience of happiness in soul.

There are ten rules of Ayurveda which must be followed to create health, vitality and energy through food/diet consumption. These are:

1. Select food as per your *dosha* type. Eat that food which will remove vikrutti or *dosha* imbalance.
2. Avoid snacks in order to protect digestion.
3. Eat satisfied, not full. Eat food like liquid and liquid like food.
4. Consume whole, fresh natural (organic) foods full of vitamins, micronutrients and minerals.
5. Use 6 *rasas* in a balanced manner.
6. Minimize ice-cold, fridge cold foods and beverages.
7. Avoid distractions while eating and concentrate on eating only. Switch off mobile and TV.
8. Eat before sunset or 3 hours before bedtime.
9. Early to bed and early to rise. Be healthy, wealthy and happy. Prefer herbal tea with honey between meals.
10. Eat largest meal at lunch – 50% salad, fruits, 25% proteins and 25% carbs.

Go for periodical fasting and detoxing the body. Eat to live, don't live to eat.

Vagbhatta Maharishi's four golden rules for good health are:

1. Drink 2-liter water stored in copper utensils in morning just after rising without mouthwash.
2. Drink water after 90 minutes of taking meals.
3. Drink water in small quantity/instalments.
4. Avoid cold water, cold drinks, etc.

6.10 SUMMARY

Ayurveda is traditional knowledge of life from ancient India. It is about 6000 years' old. Dhanwantari is God of Ayurveda. Two *Ashvinikumaras* were *Vaidya* of divines. Sushruta was father of Ayurvedic surgery, Charaka was father of Ayurvedic medicine, Agastya Rishi was father of *Siddha* Ayurvedic medicine and Patanjai was father of Ashtanga Yoga. Chyavan Maharishi invented *Chyavan Prasha*, a *rasayana* for anti-ageing. Yoga is worldwide popular and now Ayurveda is being recognized by WHO and foreign countries. *Sushruta Samhita* and *Charak Samhita* were authored in 800 B.C. Maharishi Vagbhatta also authored Ayurvedic food/diet for life. These are about 3000 years' old. He formulated these rules on the basis of his experiments of *Charaka Sutras* on own life. These are very helpful and popular.

Our human body is constituted by five *mahabhutas* – Earth, Water, Air, Fire and Ether or Sky. Ayurveda is based on *Tri-doshas* – Pitta (Fire and Water), Vata (Air and Space) and Kapha (Earth and Water). For good health, *tri-dosha* must remain in balance. Their imbalance causes diseases. Human nature or dominant *dosha* can be determined by an expert of Nadi examination *Vaidya*. Alternatively, each *dosha prakriti* has some subjective indicators which may help in determination of dominant *dosha* nature of an individual. Each *dosha* has preferred Ayurvedic diet/food and diet or food to be avoided. Ayurveda, in general, for all people prohibits consumption of certain foods to protect health. No food is good or bad in itself. *Dosha* make them good or bad.

In Ayurveda, there are six *rasas* (taste) – sweet, sour, salt, pungent, bitter and astringent. If consumed in appropriate quantity, then each *rasa* provides some benefits. Excess consumption of any *rasa* leads to health problems. *Rasas* must be selected as per dominant *dosha prakriti* season, time and age factors. Some *rasas* are prohibited in some existing diseases. *Viruddha aharas*/*rasas* must never be consumed.

Time for morning meals is up to 9-10 A.M. It should be somewhat rich. Evening meals should be light. In five nous *Kapha* food be avoided. In afternoon, *Pitta* food be avoided. In the evening, *Vata* food be avoided. It should be eaten before sunset or 3 hours before going to bed. Summer is *Pitta* season, Winter is *Kapha* season and Monsoon is Vata season. Take *anti-dosha* food/diet for good health. Autumn is *vata* season and Spring is *kapha* season. Childhood is *kapha* age, youth is *pitta* age and old age is *vata*-dominated age. Food/diet should be *anti-dosha* in nature.

There are several benefits and limitations of Ayurvedic food/diet. More research-based evidence is needed to prove claims of Ayurvedic food/diet about health. Charaka's principle proved by Vagbhatta's experiments on self are useful guides for good health of body, mind and soul of an individual.

6.11 KEYWORDS

Ayurveda, Ayurvedic Food/Diet, *Tri-dosha*, Six *Rasas*, Charaka's Principles of Ayurvedic Food/Diet, *Viruddha Aharas*.

6.12 EXPECTED LEARNING OUTCOMES

Live as per Ayurvedic food/diet principles. Avoid sickness and enjoy sound health of body, mind and soul throughout life. Minimize healthcare bill of individual and family at micro level and the nation at macro level.

6.13 SELF-TEST QUESTIONS

1. Briefly explain Ayurveda.
2. Briefly describe founders of Ayurveda in India.
3. Explain concept of *Tri-doshas* in Ayurveda.
4. Explain concept of 6 *rasas* (tastes) in Ayurveda.
5. Write short notes on:
   (1) Seasons and *Tri-doshas*
   (2) Age and *Tri-doshas*
   (3) *Viruddha Aharas* and *Viruddha Rasas*
   (4) Food Generally Prohibited by Ayurveda
   (5) *Sushruta*
   (6) Charaka
   (7) Vagbhatta
6. Describe Charaka's 10 principles of Ayurvedic Diet. Also mention Vagbhatta's 4 golden rules for good health.
7. Select any one correct answer in the following MCQs:
   (i) Ayurveda is traditional knowledge from India which is for:
      (a) Traditional use
      (b) Modern use
      (c) No use
      (d) Ultramodern use
   (ii) Ayurveda's God is:
      (a) Dhanwantari
      (b) Ashvinikumaras
      (c) Charaka
      (d) Sushruta

(iii) Father of Siddha Medicine in India was:
   (a) Charaka
   (b) Sushruta
   (c) Agastya
   (d) Vagbhatta

(iv) Charaka Sutra and Sushruta Sutra dates back to:
   (a) 800 B.C.
   (b) 800 A.D.
   (c) 300 B.C.
   (d) None of the above

(v) Dhanwantari Incarnation Day is celebrated on:
   (a) Diwali
   (b) Dhanteras
   (c) Holi
   (d) None of the above

(vi) Who experimented Ayurveda Diet Principles of Charaka in own life and fell never sick?
   (a) Charaka
   (b) Sushruta
   (c) Dhanwantari
   (d) Vaghbhatta

(vii) *Tri-doshas* in Ayurveda are:
   (a) Earth, Water and Fire
   (b) *Pitta*, *Vata* and *Kapha*
   (c) *Satva*, *Rajas* and *Tamas*
   (d) Sweet, Sour and Salt

(viii) *Dosha* with fire and water combination is called:
   (a) *Pitta*
   (b) *Kapha*
   (c) *Vata*
   (d) *Tri-dosha*

(ix) *Dosha* with earth and water combination is called:
   (a) *Kapha*
   (b) *Pitta*
   (c) *Vata*
   (d) None of the above

(x) *Dosha* with air and space combination is called:
   (a) *Vata*
   (b) *Kapha*
   (c) *Pitta*
   (d) None of the above

(xi) Intelligent, hardworking and decisive person with medium body, short temper and conflicting person in dominated by nature of:
   (a) *Kapha*
   (b) *Pitta*
   (c) *Vata*
   (d) Balanced *Tri-dosha*

(xii) A creative, energetic and loyal person with light body is dominated by nature of:
   (a) *Kapha*
   (b) *Vata*
   (c) *Pitta*
   (d) *Balanced Tri-dosha*

(xiii) A calm and loyal person with stout body is dominated by nature of:
   (a) *Vata*
   (b) *Kapha*
   (c) *Pitta*
   (d) No *dosha*

(xiv) A *pitta*-dominated nature must prefer to eat food that is:
   (a) Cooling
   (b) Warm
   (c) Fruits and Salad
   (d) Packed

(xv) Number of *rasas* in Ayurvedic Diet are:
   (a) 6
   (b) 5
   (c) 3
   (d) Nil

(xvi) *Viruddha ahara* must not be consumed. This applies to:
   (a) Milk and salt/pickles
   (b) Melons and vegetables
   (c) Sweet and sour
   (d) None of the above

(xvii) *Rasa* should be consumed in:
- (a) Reasonable/appropriate quantity
- (b) Excess quantity
- (c) As you like
- (d) Never

(xviii) *Vata* dominates:
- (a) Child
- (b) Young
- (c) Old
- (d) None

(xix) *Pitta* season is:
- (a) Summer
- (b) Winter
- (c) Monsoon
- (d) All seasons

(xx) Major limitation of Ayurvedic Food is:
- (a) Lack of research-based evidence
- (b) Mindful eating
- (c) Sound health
- (d) Economical

(xxi) When diet is wrong:
- (a) Medicine is needed
- (b) Medicine is not useful
- (c) Take it more
- (d) Skip diet

(xxii) When diet is right, it means:
- (a) It is right for the nature (*dosha*)
- (b) It is right for the season
- (c) It is for 50% of belly space
- (d) All of the above

(xxiii) *Anna* is:
- (a) Medicine
- (b) *Brahman*
- (c) *Prana*
- (d) All of the above

(xxiv) Vagbhatta Maharishi's four golden rules for health includes:

(a) Fasting

(b) Eat well

(c) Avoid drinking cold water

(d) Wash mouth before drinking water and after rising in the morning

(xxv) Ayurvedic diet principles include:

(a) Eat as you like

(b) Eat anti to *Dosha* imbalance

(c) Eat as per taste of your choice

(d) None of the above

Key to Multiple Choice Questions

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
(b)	(a)	(c)	(a)	(b)	(d)	(b)	(a)	(a)	(a)
(xi)	(xii)	(xiii)	(xiv)	(xv)	(xvi)	(xvii)	(xviii)	(xix)	(xx)
(b)	(b)	(b)	(a)	(a)	(a)	(a)	(c)	(a)	(a)
(xxi)	(xxii)	(xxiii)	(xiv)	(xxv)					
(b)	(s)	(d)	(c)	(b)					

6.14 APPENDICES

Appendix – 1

Ayurvedic *Tri-dosha* Food Chart

PITTA PRAKRITI

Grains

- **Eat:** Amarnath, Barley, Cereals (Oats cooked), Pasta, Quinoa, Rice (White), Wheat, Wheat (Brown).
- **Avoid:** Breed with Yeast, Millet, Muesli, Oats (dry), Rice (Brown).

Vegetables

- **Eat:** Any vegetable.
- **Avoid:** Nil.

Legumes

- **Eat:** Adzuki Beans, Black Beans, Black-eyed Peas, Chickpeas, Kidney Beans, Lentils, Lima Beans, Mung Beans, Mung Dal, Peas (dried), Soy Products, Tofu, White Beans.
- **Avoid:** Tur Dal, Urad Dal, Soy Sauce and Sausages.

Dairy Products

- **Eat:** Butter (unsalted), Cheese (unsalted, soft), Cow's milk, Goat milk, Ghee, Ice-cream, Yoghurt Fresh.
- **Avoid:** Butter (salted), Buttermilk, Hard Cheese, Sour Cream, Yoghurt (plain or with fruit frozen).

Animal Food (Non-veg)

- **Eat:** Buffalo, Chicken (white), White Eggs, Fish (fresh water only), Rabbit.
- **Avoid:** Beet, Chicken (Duck), Duck, Eggs (Duck), Fish, Lamb, Pork, Seafood, Fishes.

Condiments

- **Use:** Black Pepper, Mango Chutney (sweet), Coriander Leaves, Lime, Sprouts, Salt, Seaweed.
- **Avoid:** Chilly, Chocolate, Mango Chutney (sour and spicy), Ketchup, Mustard, Lemon, Lime Pickle, Mayonnaise, Pickles, Excess Salt, Soy Sauce, Mango Pickles, Vinegar.

Nuts

- **Eat:** Almonds (soaked and peeled), Charole, Coconut.
- **Avoid:** Rest All Nuts.

Seeds

- **Use:** Flax, Popcorn (simple), Pumpkin, Sunflower.
- **Avoid:** Chia, Sesame, Tahini.

Oils

- **Use:** Sunflower, Ghee, Canola, Olive, Soy, Flaxseed, Primrose, Walnuts.
- **Avoid:** Almond, Apricot, Safflower, Sesame (use external only – Coconut, Avocado)

Beverages

- **Use:** Bee (dry), White Wine, Almond Milk, Aloe Vera Juice, Apple Juice, Apricot Juice, Berry Juice (sweet), only sweet fruit juice.
- **Avoid:** Alcohol (hard), Red and Sweet Wine, Apple Cider, Berry Juice (sour), Caffeine Drinks, Carbonated Drinks. All sour juices. Icy cold drinks.

Spices

- **Good:** Basil (fresh), Black Pepper, Cardamom, Cinnamon, Coriander, Cumin, Dill fennel, Ginger Fresh, Neem, Orange, Peppermint, Saffron Fresh, Spearmint, Turmeric, Vanilla, Winter Green.
- **Bad:** Ajwain, All Spices, Hing, Basil (dry), Bay leaf, Cayenne, Cloves, Garlic, Ginger (dry), Fenugreek, Mustard Seeds, Nutmeg, Oregano, Paprika, Pippali, Poppy Seeds, Rosemary, Salt, Savoury.

Fruits

- **Eat:** Generally sweet fruits.
- **Avoid:** Generally sour fruits.

VATA PRAKRITI

Fruits

- **Eat:** Generally most sweet fruits. Apples (cooked), Apple Sauce, Apricots, Avocado, Bananas, Berries, Cherries, Coconut, Fresh Dates and Figs, Grapes, Kiwis, Lemons, Mangoes, Melons, Oranges, Papaya, Peaches, Pineapples, Plums, Resins (soaked), Strawberries, Tamarind.
- **Avoid:** Generally most dried fruits like Apple (Raw), Cranberries, Dry Dated and Figs, Pears, Persimmons, Pomegranates, Raisins (dry), Prunes (dry), Watermelon.

Vegetables

- **Eat:** All cooked vegetables.
- **Avoid:** Generally raw and dried vegetables, Tomatoes, Turnips, Wheat Grass, Sprouts.

Grains

- **Eat:** Amarnath, Durum Flour, Oats (cooked), Sprouted Wheat Bread, Wheat.
- **Avoid:** Barley, Bread (with Yeast), Cereals (cold, dry or puffed), Corns, Millets, Muesli, Old Bran, Oats (dry), Pasta, Rice Bran, Wheat Bran, Sago, Tapioca Starch.

Legumes

- **Eat:** Urad Dal.
- **Avoid:** Adzuki Beans, Black Beans, Black-eyed Peas, Kidney Beans, Lentils (Bran), Lima Beans, Miso, Navy Beans, Peas (dry), All Soys, White Beans, Tampet, Split Beans.

Dairy Products

- **Eat:** Most dry products, Butter, Buttermilk, Cheese, Cow's Milk, Ghee, Ice-cream, Sour Cream, Yoghurt (dried and spices).
- **Avoid:** Cow's Milk (Paneer), Goat's Milk, Yoghurt (plain, frozen).

Animal Foods

- **Eat:** Beef, Buffalo, Chicken, Duck, Eggs, Fish (fresh water or sea).
- **Avoid:** Lamb, Pork, Rabbit, Venison, Turkey (white).

Condiments

- **Eat:** Black Pepper, Mango chutney, Chili, Coriander Leaves, Ketchup, Kombi, Lemon Lime, Lime Pickles, Mayonnaise, Mustard Seeds, Salt, Soy Sauce, Sprouts, Vinegar.
- **Avoid:** Chocolate Horseradish.

Nuts

- **Eat:** All nuts.

- **Avoid:** No nuts.

Seeds

- **Eat:** Chia, Flax, Pumpkin, Sesame, Sunflower, Tahini.
- **Avoid:** Popcorn.

Oils

- **Eat:** Sesame, Ghee, Olive, Most Oils. (Coconut and Avocado for external use only.)
- **Avoid:** Flaxseed Oil.

Beverages

- **Use:** Beer, White Wine, Almond Milk, Aloe Vera Juice, Apple Cider, Apricot Juice, Berry Juice, Sour Juice, Carrot Juice.
- **Avoid:** Alcohol (hard), Red Wine, Apple Juice, Black Tea, Cold Drinks, Icy Drinks, Pear Juice, Pomegranate Juice, Prune Juice, Soy Milk (cold), Tomato Juice.

Spices

- All spices can be consumed.

KAPHA PRAKRITI

Fruits

- **Eat:** Generally astringent fruits like Apple, Apricots, Berries, Cherries, Figs (dry), Grapes, Lemons, Limes, Resins.
- **Avoid:** Generally all sweet and sour fruits.

Vegetables

- **Eat:** Most pungent and bitter vegetables. Lime, Beets, Bitter Melon, Broccoli, Cabbage, Carrots, Cauliflower, Green Chilies, Garlic, Onion, Peas, Pepper, Potato, Spinach, Tomato.
- **Avoid:** Sweet and juicy vegetables be avoided.

Grains

- **Eat:** Amarnath, Barely, Corn, Millets, Quinoa, Rice (White).
- **Avoid:** Bread (Yeast), Pasta, Rice Cakes, Wheat.

Legumes

- **Eat:** Adzuki Beans, Black Beans, Chickpeas, Lentils, Mung Beans. All beans and dals.
- **Avoid:** Kidney Beans, Soy Beans, Tofu, Urad dal, Miso.

Dairy Products

- **Eat:** Buttermilk, Ghee, Skimmed Milk Cheese, Goat's Milk and Cheese, Yoghurt (diluted).
- **Avoid:** Butter, Cheese (salted and hard), Cow milk, Ice-cream, Sour Cream, Yoghurt.

Animal Food (Non-veg)

- **Eat:** Chicken (White), Eggs, Fish (fresh water), Rabbit, Shrimp, Turkey (White), Venison.
- **Avoid:** Beef, Buffalow, Chicken (dark), Duck, Fish (Sea), Lamb, Pork, Seafood, Turkey (dark).

Condiments

- **Use:** Black Pepper, Chili, Mango Chutney (spicy), Coriander Leaves, Lemon, Mustard simple, Sprouts.
- **Avoid:** Chocolate, Sweet Chutney, Ketchup, Lime and Salt, Soy Sauce, Vinegar.

Nuts

- **Eat:** Charolie,
- **Avoid:** Rest all.

Seeds

- **Eat:** Chia, Flax, Simple Popcorn, Pumpkin, Sunflower.
- **Avoid:** Sesame and rest all.

Oils

- **Use:** Very limited quantity of Corn, Canola, Sesame (external use only), Sunflower, Ghee, Almond.
- **Avoid:** Avocado, Apricot, Coconut, Flaxseed, Olive, Primrose, Safflower, Sesame (internal), Soy, Walnut.

Beverages

- **Use:** Alcohol (dry wine, red or white), Aloe Vera Juice, Apple Cider, Apple Juice, Apricot Juice, Berry Juice, Black Tea (spicy), Carrot Juice, Carob.
- **Avoid:** Alcohol (hard, beer, sweet wine), Almond Milk, Coffee, Carbonated Drinks, Cherry Juice (sour). All other Tea, Coffee, Sour Juice, Soy Milk (cold).

Spices

- **Use:** All spices, except Salt.
- **Avoid:** Salt.

Regarding sweeteners, *Vata* nature must avoid white sugar and maple syrup, *Pitta* nature must avoid white sugar, jaggery honey, molasses, etc. and *Kapha* nature must avoid all sweeteners, raw honey and fruit juice concentrates.

Regarding foul supplements to be avoided are:

- ***Vata* nature:** Vitamin K, Barley Green, and Brewer's Yeast.
- ***Pitta* nature:** Vitamins B2, B6, C, E, P (Bioflavonoids), Folic acid, Copper, Iron, Amino Acids, Bee Pollen, Royal Jelly.
- ***Kapha* nature:** Potassium, Vitamins A, B1, B2, D, E.

Sequence of consuming various *rasas* is *Guru*, sweet and moist food be taken first. *Ruksta*, *Katu*, *Tikta* and *Kasaya* to be taken at the end of meals for proper digestion. After meals, take rest for 48 minutes (one *muhurat*) for proper digestion. You may do Vamkukshi and Dakshinkukshi counting 40 and 20 respectively, starting with 10 counting flat.

Appendix – 2

Viruddha Ahara

18 types of *Viruddha ahara* be avoided. *Viruddha Ahara* may lead to complications like skin disease, *visarpa*, unmade and even death. A few Viruddha Ahara combinations are listed here. Please avoid them.

1. Sprouts with meat.
2. Milk with meat.
3. Honey with meat.
4. Black Gram with meat.
5. Lotus Stem with meat.
6. Radish with meat.
7. Jaggery with meat.
8. Milk/Honey with leafy vegetables.
9. Curd with chicken.
10. Heated honey or honey taken with hot water.
11. Kheer with alcohol.
12. Fish with sugar or jaggery.
13. Milk with salt.
14. Milk with pickles.

Appendix – 3

Gita on Food and Sleep

Srimadbhagwadgita is a book as *Vedanta* and Yoga. For Yoga to be effective, it suggests *ahara*, *vihara*, sleep and discipline for a *yogi*. It divides *ahara* into three types – *Satvik* (pure), *Rajasik* (very hot and spicy) and *Tamsik* (stale, leftover and junk food). People like food type as per their own nature (*Satvik*, *Rajasik* and *Tamsik*). Remember and practice the following *Gita* mandates in your life:

1. Yoga rids one of woes; can be accomplished only by one who eats regulated diet, regulated sleep and work (*Gita* 6.17).
2. Food which is liked by *Satvik* nature persons is *Satvik* food which promotes longevity, intelligence, vigour, health and happiness. It is juicy, succulent, full of substance and agreeable to nature (*Gita* 17.7, 8).
3. Food which is bitter, sour, salty, over hot, pungent, dry and burning cause suffering, grief and sickness is *Rajasik* food. It is liked by *Rajasik* nature people (*Gita* 17.9).
4. Food which is ill-cooked or not fully ripe, insipid, putrid, state and polluted, impure too, is loved by *Tamsik* nature people.

Appendix – 4

Astro Diet

Astrology is a limb of *Vedas*. It talks about Astro Diet based on days and its planets. Those who observe fast of the day should include at least one preparation loved by the planet or God of the day. This is good for peace health, prosperity and happiness.

- **Sunday:** Lord Sun. Salt-free *lapsi* made of wheat cuts and jaggery.
- **Monday:** Lord Shiva and Moon. One plate of cooked rice. No salt. Sugar and ghee may be added.
- **Tuesday:** Lord Hanuman, Planet Mars. Churama Laddu made of wheat flour, ghee and gur.
- **Wednesday:** Lord Ganesha. Planet Mercury (Buddha). One bowl boiled moong beans.
- **Thursday:** Guru Brahaspati's Planet Guru. Any sweet made of gram flour, sugar and ghee. No salt.
- **Friday:** Guru Shukracharya. Planet Shukra (Venus). Kheer and gram beans boiled. No sour taste be added.
- **Saturday:** Lord Shani. Planet Saturn. Deep fried item. Barley bread with sesame or mustard oil prepared on iron *tava*.

Appendix – 5

Dosha and *Rasa* Chart

Dosha	**Prefer *Rasa***	**Minimise *Rasa***
Vata	Sweet, Sour, Salty	Bitter, Pungent, Astringent
Pitta	Sweet, Bitter, Astringent	Salty, Sour, Pungent
Kapha	Bitter, Astringent, Pungent	Sweet, Sour, Salty

Types of Food

- **Chosya:** The food that has to be sucked, e.g., juices.
- **Peya:** The food that is drinkable, e.g., soups and porridges.
- **Lehya:** The food has to be licked, e.g., paste consistency foods.
- **Bhojya:** The food to be eaten, e.g., cooked items like rice and dal.
- **Bhakshya:** The food that has to be broken with teeth and eaten, e.g., all kind of nuts.
- **Chavya:** The food that has to be chewed, e.g., all kind of rich fiber food.

All there *Dosha* balancer herbs are –

1. Triphala Churna with unequal honey and deshi ghee. Take with warm milk empty stomach in morning and before bed time in night regularly.
2. Or. Amla, Giloy and Gokharu powder in equal proportion with simple water one tea spoon in morning and before going to bed in night.

Irrespective of your *Dosha* type and imbalance you can take any one of the above two.

6.15 REFERENCES AND FURTHER READINGS

1. Charaka Samhita, Amazon.
2. Traditional food recipes form Ayush Systems, Ministry of Ayush, Government of India, 2022.
3. G20 Primer on Traditional Medicine, 2023.

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Unit 4 : Governance and Public Administration

Chapter 7

GOVERNANCE SYSTEM HERITAGE

Learning Outcomes

1. To know about India's Heritage about Governance System in tow Epics and Kautilya Arthasastra.
2. The King – Attributes of an Ideal King. Do's and Don'ts for a King.
3. To know about *Prakritis* of a State.
4. To know about role of a Prime Minister. His advice to King – Case of Vidura.
5. To know about *Amatya* (Revenue Minister), Settlements and Land Use (*Janpada*).
6. To know about Capital City, Fort, etc.
7. To know about Treasury (*Kosa*) and State Economy, System of Accounting and Audit.
8. To know about Governance Public Audit (*Sabha Parva*).
9. To know about Law and Order, and Defence System.
10. To know about Foreign Policy and Diplomacy, Ambassador, etc.
11. To know about Spy System on *Prakritis* of a State.

Structure

7.1 Origin of a King, His Attributes, Roles and Responsibilities – *Manusmriti*

7.2 Ideal or Role Model King Attributes – *Valmiki Ramayana* Epic

7.3 Attributes of a King, His Roles and Responsibilities – *Mahabharata* Epic
7.4 Attributes, Roles and Responsibilities of a King – Kautilyan State
7.5 Need and Importance of a King
7.6 Prakritis of a State
7.7 Summary
7.8 Keywords
7.9 Expected Learning Outcomes
7.10 Self-test Questions
7.11 Appendix
7.12 References and Further Readings

7.1 ORIGIN OF KING, HIS ATTRIBUTES, ROLES AND RESPONSIBILITIES – *MANUSMRITI*

Bhagwan *Brahma* created the universe. He divided his body into two parts – male part was named '*Manu*' and female part was named '*Satrupa*'. This was first couple of the universe from whom creation through sexual intercourse (*maithunishrishti*) stated. *Manu* was male first sovereign king of the world. *Satrupa* was first queen. Their progeny in *Surya* clan and *Chandra* clan is still ruling over the whole world.

Manu prescribed code of Conduct for *Manavas* or human beings. It is called '*Manusmriti*'. He invented 'Divine Attribute Theory of Leadership/King/CEO'.

A cultured king has to protect his subjects (public) with justice (*Manusmriti* 7.1-2). King is needed to establish and maintain law and order, security and growth of economy. He takes his attributes from eight gods. God took essence form eight gods to create a king. These are *Indra*, *Air*, *Yama*, *Sun*, *Fire*, *Varuna*, *Moon* and *Kubera* (*Manusmriti* 7.3-4). Each God's essence represents attributes of a king or leader.

1. ***Indra*****:** *Indra* is a king of divines in heaven. A king must provide rain of grace (*Krupa Vrishti*) for maintenance and growth of public without any discrimination like *Indra*.
2. ***Air:*** Air is invisible and moves everywhere. A king must be invisibly moving everywhere through his spy network. Like air, a king should also be able to blow hot and cold as per the need of the situation. He must see everywhere and be well-informed.
3. ***Yama*****:** *Yama danda* of a king is power of punishment which he must use wisely. A king has no relative when a criminal is to be punished who belongs to his family. He has to become *Yama* in law and order, justice and defence.
4. ***Sun:*** As Lord *Sun*, King of Planets, a king spreads rays and removes darkness. He provides heat also. Nobody can see him without straight eyes Sun. In the same way, a king must have *teja* on his face like Sun and nobody must dare to see straight in his face. As Sun extracts water in Summer, so a king also levies and recover tax from citizens.
5. ***Fire:*** *A* king must have anger for enemies to kill them and criminals to punish them. A king must be like fire. Keep safe distance from a king. If you move very close to him, you may be burnt, and if you are very far off from a king, your cold will not go away.

6. ***Varuna*:** To arrest and imprison criminals and enemies, a king must act as *Varuna*.
7. ***Moon:*** Like *Moon*, people must feel happy to see face of a king. Like *Moon*, a king should spread peace, nourishment and happiness. *Sun* and *Moon* are two eyes of a king. He must observe vigilantly 24/7.
8. ***Kubera*:** A king must be very resourceful like *Kubera*. State treasury must always be full.

Thus, mix of 8 divines' essence makes attributes of a king. For proper use of *Dandaniti* (Power of Punishment), a king must have the following attributes/qualities:

1. Purity of heart
2. Truthful
3. Practitioner of *Shastras* (Laws and Ethics)
4. Pure intellect
5. Aided by good ministers and public administration

He must be free from 10 avoidable defects listed below:

1. Hunting
2. Gambling
3. Sleeping during day time
4. Publicly telling defects of others
5. Womanizing
6. Liquor consumption
7. Dancing
8. Singing
9. Music
10. Roaming aimlessly

These defects involve wastage of time, money and health; and lower down efficiency of governance and administration. A king addicted to six vices (desire, anger, greed, attachment, jealousy and ego) is destined to go to hell (*Manusmriti* 7.53). *Manusmriti* deals with a king in *Satyuga* when kings likes *Manu* ruled over the whole world. A king had attributes of 8 divines. Defects of a king are described as warning only, not in actual life.

7.2 IDEAL OR ROLE MODEL KING ATTRIBUTES – *VALMIKI RAMAYANA* EPIC

Maharishi Valmiki's *Ramayana* presents Shri Ram as *Dharma vigraha* (Ethics or *Dharma* personified). He has described qualities of an ideal leader/king. He must be a man of sound physique like excellent strength, glowy and beautiful body, thick shoulders, long arms, conch like brows, fleshy chin, broad chest, beautiful head, impressive forehead, beautiful walking style, middle height, beautiful glowy skin, fleshy chest and big eyes. He must possess spiritual qualities like control over mind, patience, control over sensory organs, good knowledge of *Dharma*, truthful, intelligent, pure and concentrated mind. He must have leadership qualities like effective and communication skill, tormentor of foes, powerful, doer of good to public and

famous. Shri Ram became an ideal king due to his good governance, resourcefulness, bravery, ethical practice and protection of public. He was knower of *Vedas*. He was expert archer. He had good memory. He was endowed by intelligence. He was man of pure thought and king heart. He was beloved of all his people. He was accessible to public. He practiced quality or non-discrimination policy.

(*Valmiki Ramayana Sarga Shlokas 13-16*)

Valmiki also described Divine Attribute Theory of Manu in the following words:

"He is deep like *Varuna*, man of patience like *Himalaya*, strength like *Vishnu*, beauty like *Moon*, anger like *Yama*, *Kshema* like Earth, donor like *Kubera*, and truth as *Dharmaraj*. Thus, Valmiki added attributes of physical objects like earth, mountain and sea in addition to 8 divines. Two more divines *Vishnu* and *Dharmaraja* were also added."

(*Valmiki Ramayana, Balkand, Sarga 1, Shlokas 17-19*)

Again, Valmiki added that a king was more than any one God because he performed roles of all Gods. He was all in one. ***(Valmiki Ramayana, Ayodhyakand, Sarga 67, Shloka 35*)**

Qualities of an effective king/leader are again stated in *Ayodhyakand Sarga 1, Shlokas 23-32*. He is submissive, keeps advice and intention secret and has good ministers/advisors. His pleasure rewards and anger punishes. He knows when to raise resources and when to spend. He is grateful to good assistants. He can read mind of others. He delivers justice. He procures and maintain good people and punishes criminals timely. He is expert in Economics and Finance. He knows local language also. He is skilled in Dramatics. He consumes four *purusharthas* in a balance manner at appropriate time. He is very active. He knows performing arts, horse riding, elephant riding and their strategic moves. He is expert in war management. He is a good time manager. He is beloved of public.

Valmiki Angad's attributes described by Shri Hanuman are desire to listen, listening absorbing, holding, discussing, interpreting, understanding and taking substance. He should know four devices – *Saam*, *Daam*, *Danda* and *Bheda*. He must have 14 qualities listed here:

1. Knowledge of environment (place and time)
2. Firm in decision
3. Capacity to bear pains
4. Knowledge of diverse subjects
5. Cleverness
6. Enthusiasm
7. Secrecy of advice
8. Effective communication
9. Bravery
10. SWOT analysis of own and enemies
11. Gratitude
12. Granter of refuge
13. Good conduct
14. Stability

He knew *Brahaspatiniti* and *Dandaniti* of Shukracharya ***(Refer* Valmiki Ramayana's *Kishkindha Kanda).***

Valmiki had divided kings in three categories – best in participative decision leader, medium is self-decision-maker and the worst is indecisive, suspicious, and does not complete a task.

***(Valmiki Ramayana, Yuddhakand, Sarga 6, Shlokas 7-10*)**

Valmiki has also described defects which a leader must avoid. These are addictions, no deliberations, bad behaviour, misguided by enemies appearing as friends. Misbehaviour includes misuse of power to punish, hot speech, wasteful expenses, liquor consumption, hunting, gambling, womanizing, etc.

(*Valmiki Ramayana, Yuddhakand, Sarga 14, Shloka 17*)

Thus, Valmiki Ramayana, the first Sanskrit epic of the world, has made significant contribution to the attributes of a king/CEO/leader which is immense contemporary relevance in Governance of a nation and also of a corporate entity.

Valmiki Ramayana epic belongs to a king in *Treta Yug* when *Dharma* declined to 75%. Demon king Ravana was also there in *Treta Yuga*. Defects of a king were not only in theory but also came in actual life.

7.3 ATTRIBUTES OF A KING, HIS ROLES AND RESPONSIBILITIES – *MAHABHARATA* EPIC

Mahabharata epic dates back 3500 B.C. It was authored by Shri Krishna Dwaipayana Vyasa, an incarnation of Bhagwan Vishnu.

Mahabharata contains one lakh Sanskrit *shlokas* and it is divided into 18 parts. Gems like *Vidurniti*, *Gita*, *Vishnu Sahasranama* and a long discourse as Governance, *Dandaniti*, *Rajdharma* delivered by Bhishma Pitamaha are studded in sparkling rosary of Mahabharata.

Adi Parva mentions functions of a king like:

1. Satisfy Gods by *yajna* performance.
2. Satisfy Ancestors (*Pitras*) by performing *shraddha*.
3. Satisfy the poor by charity, honour and affection.
4. Satisfy Brahmins by giving what they wanted.
5. Facilitate business by protection.
6. Motivate employees by good behaviour.
7. Suppress criminals by awarding appropriate punishment.

(*Mahabharata, Adi Parva, Chapter 23*)

King Yudhishthira was *Dharmaraj* incarnated. He avoided use of unreasonable, untrue and unpleasant words. This is great quality of an ideal king/leader.

Then episode of King Yayati's fall from heaven contains a great learning. An accomplished king must be free from ego of his attainments. He must avoid self-praise. In case of downfall due to ego, he must go to sages for *Satsanga*.

(*Adi Parva, Chapter 24)*

Second part *Sabha Parv*a contains a case of Governance Audit in open court of Maharaja Yudhishthira by a team of 5 sages led by Sage Narada. It is a unique case of India's rich heritage in Governance Audit or public accountability of a king. This case also proves that India has practice of welfare state even in monarchy.

Sage Narada laid down six qualities of a king (leader):

1. Effective order
2. Valour
3. Anticipation of results or consequences
4. Wisdom
5. Expert in policy formulation
6. Power to discriminate between what should be done and what ought not to be done

Sage Narada has listed 14 defects of a king (leader):

1. Atheism
2. Falsehood
3. Anger
4. Negligence
5. Procrastination
6. No company of wise men
7. Idleness/laziness
8. Slave of sensory organs (lack of *Sanyam* or self-control)
9. Greed for wealth
10. Consulting foods
11. Delaying work with certainty of success
12. Lack of confidentiality of advice
13. Non-celebration of events
14. Several missions undertaken simultaneously

In *Dwaparyuga* end, number of defects increased and such bad kings like Shakuni, Jarasandha, Dhritarashtra, Duryodhana, Rukmi, Banasur and Bhomasur actually existed. This was reason responsible for *Mahabharata* war and other wars fought by Bhagwan Shri Krishna.

In *Van Parva*, Ashristrasen-Yudhishthira dialogue is given in which stress has been laid on best practice cases of own ancestors and other *Rajrishis*. Public conduct and behaviour of a king must have patience, excellence, place, time and valour. This attribute is emphasized in Kubera-Yudhishthira dialogue, attribute of king 'impartiality' has been stressed.

In *Virat Parva*, what precautions we must observe while serving a king are explained by Dhoumya sage to Pandavas during one year of incognito exile.

In *Udhyog Parva*, *Vidurniti* contains preaching by Vidur to King Dhritarashtra as a discourse as Governance Ethics. This we will study in a later part. Here, we restrict to attributes and defects of a king. *Vidurniti* lists 7 defects of a king. These are:

1. Addiction of woman
2. Gambling
3. Hunting
4. Consumption of liquor
5. Use of harsh words
6. Unjust punishment awarded
7. Misuse of wealth

Vicariously, Vidur hinted to king Dhritarashtra that he had these defects in his family.

Vidur also hinted about attributes a good king must have. These are pleasure and anger must deliver result. Eye contact be soft and speak less. He should grant benefit to deserving only. People loves a king who makes them happy by his eyes, mind, voice and action. People desert a king who is unjust and creates fear.

Bhishma Parva is called *Shrimadbhagwadgita*. Bhagwan Shri Krishna has stated clearly that "I am king among humans." A king has my special opulence (*Gita* 10.27). A king belongs to *Kshatriya* attitude. He must have attributes of heroism, majesty, firmness, diligence and dauntlessness in battle, bestowing benefits and lordship. These are natural duties of *Kshatriya* to govern (*Gita* 18.43). By doing own duty with detachment to fruits, a king can also attain *Moksha*. Examples are *Rajrishis* like Manu, Ikshvaku, Janaka, Ashwapati, etc. In *Mahabharata*, Bhishma Pitamaha also attained salvation by sacrificing own life in fulfillment of own commitment to Hastinapur kingdom.

Shanti Parva and *Anushashan Parva* contain very rich knowledge related to king, his attributes, roles and responsibilities. This is a training programme conducted by Bhishma Pitamaha for Pandava brothers accompanied to Pandavas. A few key learnings are listed here:

1. An ethical king is one who applies pardon and anger appropriately, gives donation and recovers taxes, deters enemies, makes refugee fearless, punishes criminals and is kind for the poor.
2. Punishment (*Danda*) protests public. It is always awake. It is the duty of a king. *Dharma*, *Artha* and *Kama* are protected by it. It protects and enriches wealth of nation. Without fear of punishment, people will not honour own promises. It is difficult to find a fully pure person. People observe code of conduct due to fear of punishment.
3. A king must have self-control over his mind and sensory organs. He must have equanimity of mind. He should be fair and equitable distributor and consumer of remainder only. He must have good knowledge of scriptures. He must suppress bad persons and protect gentlemen. He should keep public on right path. In the old age, he should hand over reins to his successor and retire to forest.
4. A king should organize *yajna*, study *shastras* and attack enemies. He should not be satisfied about wealth of nation. He must award punishment appropriately. This is his main duty. Power to punish includes power to pardon also. But a king should never think of renouncing power of punishment and take *Sanyas*.

5. If a king who takes 1/6th part of produce as tax but fails to defend the nation, then he will take 1/4th part of sins committed by his public. His downfall comes when he violates *shastras* (law).

(Mahabharata, Shanti Parva, Chapter 8)

6. Worst king is greedy, cruel, suspicious, exploiter, unfair and unjust. He is killed by own people.

(*Mahabharata, Shanti Parva, Chapter 25*)

7. A king is responsible to manage and control self, ministers, friends, treasury, country, fort and army. He must punish an attacker on any one or more of these seven *prakritis* of a kingdom. A king should not trust 100% anybody.
8. In *Satyuga*, people were pure and self-controlled. But when ethics declined, need for a king arose. Bhagwan *Brahma* authored '*Trivarga*'. It was very voluminous. It was given to Bhagwan Shiva. He abridged it. This book was called '*Vaishaleksha*'. It was given to *Devraj Indra*. He further abridged it. Now, this book was called 'Bahudantaka'. Divine Guru Brahaspati further abridged it and titled it 'Brahaspatya'. Then Demon Guru Shukracharya reduced it further to 1000 chapters only. This is ancient history of *Dandaniti*, an important part of our cultural heritage on king and Governance.

(*Mahabharata, Shanti Parva, Chapter 27*)

9. Bhishma gave a new concept of 'Pragmatic' values 'for a king/leader. He should be ethical but not bitter/cruel. Be aesthetic but affectionate in interpersonal relations. Be growth-oriented but not cruel. Be soft but not helpless. Be brave but not arrogant.

Bhishma has also reiterated Manu's theory of Divine Attribute of a King. He says, "King performs five roles of five Gods – *Fire* to punish criminals and take round incognito, *Sun* to keep eye on all through spies, *Yama* to finish invaders/terrorists, *Kubera* to enrich treasury through tax and grant gifts as *Indra*."

As Maharishi Valmiki presented Bhagwan Ram as role model king, so Bhishma Pitamaha declared Bhagwan Shri Krishna as the role model of leadership of the universe. He offered prayers called '*Vishnu Sahasranama'*. It contains rich knowledge on leadership, attributes, roles and responsibilities. Bhishma mentioned the following main points:

1. He provides *yoga-kshema* to all stakeholders. Yoga means to provide what is not and *kshema* means to protect what is.
2. He leads to attainment of goal/mission.
3. He is chief of all. He has no boss.
4. He provides justice.
5. He employs thousands of people.
6. He is all-powerful, courageous, knowledgeable, ethical and resourceful.
7. He is prompt, fair and equitable distributor of fruits to all claimants.
8. He practice rules and enforces rules. He punishes sinners.
9. He is autonomous, industrious, chief of bosses, supervises and controls their work.
10. He is controller of anger, ego and gives respect to others. He is giver of good intellect.

(*Mahabharata, Anushashan Parva, Chapter 64*)

Mahabharata proves decline of human values in the last part of *Dwaparyuga*. It was cause of *Mahabharata* war and several other wars.

7.4 ATTRIBUTES, ROLES AND RESPONSIBILITIES OF A KING – KAUTILYAN STATE

Chanakya's famous book on Political Economy entitled *Kautilya Arthasastra* (including *Chanakya Sutras*) and *Chanakya Niti* are the main sources to know about Kautilyan State. Period of Chanakya is believed to be 400 B.C. to last part of second century B.C. He was Professor of Political Economies at world famous Takshashila University, now in Pakistan. He was Mentor of great King Chandragupta Maurya and also the Prime Minister of his kingdom for 24 years.

Chanakya has laid stress on education and training of a Prince who has potential to this includes study of *Vedatrayi* (Rigveda, Yajurveda and Samveda), *Upa Vedas* and *Vedangas*, Atharvaveda, *Anvikshiki* (Astronomy), *Itihasa*, *Varta* (Economies, Commerce, Trade and Agriculture) and *Dandaniti* (Governance, Diplomacy, War and Peace, and Control of all *Prakritis* of a kingdom). Chanakya wanted Value-based Education for leadership development. He called Philosophy as lamp of all sciences.

(*Chapter 1, Monogranth 1 of Arthasastra)*

Chanakya identifies and enumerates attributes of a king as ethical, resourceful, self-controlled, submissive, service of seniors, scientific temper, self-realized, detached (impartial, independent), respect for *shastras* and tolerance of hardship (*Chanakya Sutras*).

Chanakya has defined Governance – good and bad – in two *Sutras*:

Alabdhlabhadicatushtayamrajyatantram (42)

"Governance is divided into four parts:

1. To have what is not (production/growth of wealth).
2. To protect what is (protection of wealth, internal security, law and order, justice and defence).
3. To ensure proper distribution of income and wealth (distribution for consumption, savings and investment).
4. To appoint competent public administration and to take work from them.

Rajyatantratayamnitishastram (43)

The state *tantra* works as per ethics. It is good governance. If state *tantra* works as per unethics, then it is bad governance or misgovernance.

Chanakya Niti mentions principle of a king's accountability to public, have a good king, avoid bad king (who gives bad governance), bravery, principle of *Rajdharma*, principle of no satisfaction in growth and expansion and principle of loyalty. He propounds unique policy principles like 'Tit for Tat' and '*Yatha Raja Tatha Praja*'. He advocates middle path avoiding extremes. He loudly says 'A king has no relatives'.

He advocates industry as a solution to poverty. He was a great visionary. He has advocated globalization of intellectuals and businessmen (*Chanakya Niti* 3.13). He is perfectly right when he says "Universal brotherhood is the spiritual base for globalization (*Chanakya Niti* 10/14).

Chanakya lays down theory of diplomacy, internal relatives, war and peace. He says a king of our neighbouring state is our natural enemy. His neighbour state is his enemy but our natural friend. Community of intellect makes friends and conflict of interest makes enemies. In foreign policy, the dictum is "No permanent friends or foes. Only interest is permanent."

A strong king should increase conflict with weak king. A weak king must avoid direct conflict with a strong king. Find way to truce. Alliance with weak may not survive long.

Chanakya has laid down principles of consultation and its secrecy. Council of Minister may have 12 to 20 members. A non-citizen person of foreign origin cannot be a Minister. Council of Minister should deliberate on what to do, what to complete, what and how to improve, and how to attain excellence in execution. A king must have expert knowledge of *Dandaniti* to take benefit of consumption.

Chanakya has laid down qualities and duties, do's and don'ts for an ambassador. He must be non-corruptible and loyal to his own king and nation.

Chanakya is fully aware of risk to king from his Prince and gives some unique solutions. However, his major emphasis is on his good education and training.

Chanakya has given a detailed framework for departmentation (*Monogranth 2*, *Arthasastra*). He has listed 26 departments, qualifications of their heads, their duties and resources needed.

A king should undertake towards and observe things directly. He also advises person's need-based motivation – greedy by money, adamant by appeasement, a fool by knowing his intention and wise person by convincing. He further adds – mean person only money, middle person desires money with respect and higher people desire respect. The same tool of motivation cannot be used for all.

In control function, Chanakya stresses on self-control (*Chapter 5*, *Monogranth 1*, *Arthasastra*) as well as imposed control through a wide and deep spying network (For this, see *Chapter 10*, *Section 140*, *Book 1*, *Arthasastra*). He clearly states, "Public servants are like fishes in a pond. When a fish drinks water we can't say. Same is true about public servants that it is difficult to know when they will do corruption." He advocates strong spy network and supervision control by superiors (*Chapter 9*, *Section 27*, *Book 2*, *Arthasastra*).

Chanakya has also recommended fair and just use of punishment after due deliberation.

Chanakya *Arthasastra* gives a comprehensive system of written communication and scientific writing (*Chapter 10*, *Section 28*, *Book 2* and *Chapter 1*, *Section 180*, *Book 15 of Arthasastra*). It is useful for scientific writings also. Then Chanakya has called good oral communication as a gem on earth. Don't condemn/criticize others. Sweet and true speech and ethic of good words are essential for a king. Decline or growth depends on one's oral communication.

Chanakya has emphasized self-control on mind and sensory organs by a king. He has given examples of destruction of King Ravana due to lust and ego of Duryodhana due to greed and lust. Sustainable power to govern comes from self-control of the king. A king must keep off from other's woman and wealth, violence, etc. He must avoid untimely sleep, fickle mindedness,

falsehood and adamancy. He must avoid company of persons who have no self-control. He must give up unethical and disastrous behaviour.

Chanakya has laid down stress on effective time management by king and balanced life with *dharma*, *artha* and *kama*. He must generate wealth through ethical means and consume it wisely. He should appoint competent persons as ministers and advisors, and listen to their advice carefully. Regarding wealth and ethics, his warming is pertinent that wealth earned through unethical (corrupt) means can survive for 10 years only.

Chanakya is close to modern times, when he emphasizes importance of globalization, reasonable taxes, public sector, knowledge wealth, foodgrains as essential wealth and time management by a king. He is in favour of free access of public to king. (For more details on duties of a king and time management, you may read *Chapter 19*, *Section 16*, *Arthasastra*).

Now, we can list major features of Kautilyan state hereunder:

1. Replacement of bad king by the best king.
2. Most ethical self-controlled mentor and advisor as Prime Minister who is also an expert in Political Economy, Diplomacy, etc.
3. Commanding position of public sector in economy.
4. Value-based education for Prince and other youth.
5. Deep and wide spying network covering al*l prakritis* of a state, except king.
6. National integration through effective diplomacy.
7. Economic prosperity through industry, farming, trade – domestic and foreign, good tax policy and subsidy policies. No poverty.
8. Effective internal control, defence, justice and well directed, supervised and controlled system of public administration.
9. Well thought-out Government Departments doing own specific job.

7.5 NEED AND IMPORTANCE OF A KING

Every state needs king as A leader who can provide good governance and make people feel good. The Hindi and Sanskrit word '*Raja*' means a leader who can make people feel good. (*Lok Ranjaka* means *Raja*.) Absence of King creates anarchy for which Hindi and Sanskrit word is '*Arajakata*' means 'no king, no order'.

In *Valmiki Ramayana*, Maharishi Valmiki stated, "Without cowherd, animals are destroyed. Without an army chief, an army is vanquished. Without moon, night becomes dark. In the same way, a country (or organization) is destroyed without a king/CEO."

(*Valmiki Ramayana, Ayodhyakand, Sarga 14, Shlokas 56 and 561/2*)

'*Arajakam hi no rashtram vinasham samvapnuyat.*'

Without a King a nation is destroyed. From Shloka 9-31 Valmiki has listed 16 ways in which a nation without king is destroyed. This applies to corporate entities and other organizations also.

(*Valmiki Ramayana Ayodhyakand, Sarga 6-7, Shlokas 8-31*)

A bad king can be changed. Shri Krishna did it by *Mahabharata* war. Chanakya did it by coup. In *Bhagwat Mahapurana*, there is episode of bad king Ven. He was replaced by *rishis* killing Ven and *Pratha* was raised and installed by them. He became a role model king.

7.6 *PRAKRITIS* OF A STATE

Mahabharata epic has identified 7 *Prakritis* of a state. These are King, Minister, Friends/Allies, Treasury, Country, Fort and Army.

(*Mahabharata, Shanti Parva*)

Demon Guru Shukracharya, an authority on *Dandaniti*, has also identified seven elements or anger of the body of a state. These are King, Minister, Country, Fort, Treasury, Fort, Army and Friends.

1. The King

King is the Head or leader of the body of a state. Without king, a state gets destroyed. We have already studied in detail attributes and defects of a king, his roles and responsibilities for good governance. Now, we briefly explain about other six components of a state.

2. Minister

Our two epics present two role models of Prime Ministers. When Rama, Sita and Laxmana were going to forest for 14 years, how Sumantra handled a very delicate situation created by succession dispute raised by queen Kaikeyi. After death of Dasharatha and Bharata's refusal to kingship, he handled a very complex situation with due diligence and care.

In *Mahabharata* also, role played by the Prime Minister Vidur was very critical when Yuvraj Duryodhana became real centre of power and King Dhritarashtra could not muster courage to go against wishes of his son Yuvraj Duryodhana. Prime Minister was humiliated by Yuvraj Duryodhana. The king failed to stop this misbehaviour and Vidur resigned from Prime Ministership. One night before commencement of war, the king was very stressful. He fell victim of insomnia. He called for Vidur at midnight. He came. The king asked for his advice. He delivered a 4-hour long discourse to the king as leadership, *Rajdharma*, Governance, ethics, etc. This discourse is part of *Udhyog Parva* of *Mahabharata*. It is called '*Vidurniti*'. The king agreed with advice of his former Prime Minster but expressed his helplessness due to pressure of his son Yuvraj Duryodhana.

Vidur made the following major submissions:

(i) One who has unethically seized property of others or has intention to do so cannot sleep peacefully due to fear of revenge or defeat.

(ii) You understand humans on the basis of their attributes. They can be put in three groups:
   (a) Wise persons
   (b) Fools
   (c) Persons of virtuous mind.
   (d) Category persons are very dangerous. Avoid them. Fools may be avoided and wise persons be selected for relationship/advice, etc.

(iii) Learn ethics and practice them in life.

(iv) Check for qualities of a good leader in king.

(v) Self-control, effective oral communication, good conduct of committee meetings, effective control system and kindness are essential for success as a king.

(vi) Family conflict be avoided. It has bad consequences for family.

(vii) Friends/allies be grateful, ethical, truthful, generous, stable devotees, self-controlled and practitioner of *maryada* of friendship.

(viii) Emotional Intelligence requires tactful handling of anger, sorrow, stress, depression, etc. of even mind, free from duals like pain-pleasure, gain-loss, etc.

(ix) Follow good advice. Good intellect given by God is destiny favours you.

(x) Avoid sinful conduct.

(xi) Tit for Tat policy to be followed.

(xii) Gambling, dishonour of women and liquor consumption are bad for a royal family.

A Minister must be loyal to nation and restrain king from going astray. Nation first should be his purpose of being a minister. He must give timely advice to king even in critical moments, impartially and independently.

***Amatya* (*Revenue, Settlements of Land*)**

Land be measured and recorded. A village is its basic unit. It is of 1.6 km. land area and has land revenue of ₹ 21,000 per month/year. Half part of village is called *Palli* and one-fourth part is called *Kumbha*. Land of a village measures 5000 hands as per *Prajapati* (4000 hands as per *Manu*).

Bhagwan *Brahma* (*Prajapati*) has given a mega measure of 2.5 crore hands = 1 *Kos* and 62.5 crore hands = 1 *Nivartam* (*Bigha*).

One *Angul* is equal to middle finger's middle part. Another Acharya has defined one *angul* equal to 8 barleys in length and 5 barleys in width.

As per *Prajapati*, standard measure of land is one hand. It is equal to 24 *Anguls*.

Log is also used to measure land. Two types of log are used – 4 hand long is called small log and five hand long is called large log. One log = 768 barleys (*Prajapati* standard) (*Manu* uses 600 barleys as standard length).

Cultivated land is called '*Parivartan*'. One P*arivartan* is equal to 25 logs or 1000 hands, or 60,000 fingers as per *Prajapati* and 75,000 fingers' length as per *Manu*.

While acquiring land, a king should use *Prajapati* measures, and while allotting land, he should use *Manu* measures of land. Land allotted for livelihood be a lifetime right only. No succession after death of allotted and no right to sell land be given to an allottee.

(*Shukraniti, Part 1*)

Land be allotted for place of worship, *dharmashala*, public park and housing.

3. Fortified Capital City (Durga)

(i) Capital City: Land for capital city be selected on the basis of the green cover, grains and wealth, river water ways to reach sea for export-import trade. Land must be levelled and shape should be moon, circle or square. This applies to other city also.

(ii) Raj Bhavan: In the state capital, Raj Bhavan (king's residence) must have an assembly hall in the centre. All four arms of Raj Bhavan should be equal (square shaped). South side must be higher and north side lower in height. Parking, armory, gym, cloth and wealth storage, and study room should be constructed in north arm. *Brahma Kshetra* be left vacant.

North to Raj Bhavan, Royal Court and skill centre should be located. Boundary wall height should be 1/5th of length of Raj Bhavan. Storage house length's 1/6th part should be thickness of wall. This is for one-storey house. Thickness of walls of each floor be decided accordingly. Three, five or seven rooms be constructed in Raj Bhavan with support of walls or pillars. House to be divided in 8 parts. Middle two parts be used for doors. This applies to all the four directions. Windows may be added as per climate need for comfort. Entrance door and windows must have no value. Rain water exit be provided. Raj Bhavan must be secured by a high wall equal to ½ or 1/3rd of its length.

(*Shukraniti, Shloka 238*)

Capital city must have good town planning, bungalows for Prime Minister, DeputyPrime Minister, *Rajpurohit*, Army Chief, houses for horses, elephants, cannons, security staff and tribals. There should be guest houses for guests. *Dharamashalas* should be east or north facing. Specialized markets like textile market, bullion market, vegetable and fruit market should be developed. Shop may be located on both sides of Raj Marg.

There must be circular road around Raj Bhavan. Raj Marg should be 30 hands wide. In other cities also, there should be such roads. Narrow foot paths and streets should not be allowed in capital city due to security reasons. Raj Marg should pass from middle of the city from east to west and south to north. In between Raj Margas, 20 hands wide Class B should be constructed. Between classes A and B classes, Raj Marga's Class C roads of 10 hands width should be constructed.

In towns/villages, roads must be elevated in centre. Bridges must be made beautiful. Covered drainage under road must be constructed for exit of water. Houses must open on Raj Marg on service roads. All roads must be well maintained.

(*Shukraniti, Part 2*)

Ayodhya was a *Janpada*, capital city of Ayodhya Kingdom. Its prosperity has been described in *Valmiki Ramayana*.

(*Valmiki Ramayana, Balkand, Sarga, Shlokas 3-12*)

(iii) Fort: Mahabharata mentions six types of forts. Capital city should be a fortified city having any one appropriate type fort:

- **(a) Desert fort –** Surrounded by vast desert area.
- **(b) Land fort –** Fort constructed underground of a levelled land.
- **(c) Mountain fort** – Fort constructed on a hill top.

(d) Human fort – It is armed force fort.

(e) Sand fort – A fort surrounded by high sandy dunes.

(f) Forest fort – A fort surrounded by thick and theory forest.

(*Mahabharata, Shanti Parva, Chapter 41*)

Modern time is of hi-tech computer wars, nuclear missiles, etc. No traditional fort is safe from defence viewpoint. These facts are objects of foreign tourists now.

4. Treasury and State Economy (*Kosa*)

The king must have good knowledge of economies and finance. Control of treasury, funds and finance are matters in which a king must have final authority. There must be a very competent Finance Minister with knowledge of Economy and Finance. In *Ramayana*, Ayodhya kingdom became prosperous due to Sumantra as Minister of Finance. In *Mahabharata* epic also, Vidur, the Prime Minister was expert in Ethics and Finance. He laid a visionary economic policy when he stated, "Labour plus capital must for economic development. Both must cooperate." He also emphasized, "Least cost maximum benefit combination be preferred after analyzing all competing proposal." This was root of zero-base budgeting.

Chanakya has described in detail Treasury Management, Treasury and its Head Treasures, qualification, roles and responsibilities (*Monograph 2*, *Arthasastra*). He has provided description of Director of Revenue (*Chapter 6*, *Section 24*, *Book 2*), Comptroller General of Accounts and Audit (*Chapter 7*, *Section 25*, *Book 2*) and Control over Misappropriation of Revenue by Public Servants (*Chapter 8*, *Section 26*, *Book 2*). He has listed 40 ways of embezzlement by officers. He can be called father of treasury management, accounting and finance, auditing plus forensic accounting. He has given concept of Time Value of Money by saying "Today's pigeon is preferable to tomorrow's peacock." He laid down a system of misappropriation and fraud investigation, defection and punishment.

Rich economy through industry, farming, domestic and foreign trade and tax-payer-friendly tax policy led to prosperity of nation. Rich treasury led to well-prepared army and contented citizens. Thus, Chanakya rightly stated "Rich treasury makes a nation rich and army strong."

5. Army

A king must ensure timely delivery of justice to people. Power of punishment be applied appropriately. *Danda* must assure internal security through police and courts. Criminals must fear *danda* and gentle persons must feel secure, fearless and assured of fulfillment of promise by promise due to fear of law and justice. Minister of Home Affairs and Minister of Law must deal with this.

6. Army/Law and Order and Security *(Danda)*

A king should follow an enlightened national interest-driven foreign policy and diplomacy based on *Saam*, *Daam*, *Danda* and *Bheda*. Strong army, well prepared army, well-paid and well-motivated army ensures national defence. Make good strong and loyal friends/allies. Create fear of *danda* by army amongst enemies. Divide and weaken them by *bheda* strategy. If they still don't behave well, then use army power to punish them. Try to convert neutral kings into friends and keep them off from becoming enemies through *saam* and *daam*.

An army chief must be a well-qualified, experienced, totally loyal to nation and courageous person. On defence matters, he should give proper advice to the king.

A king must appoint competent Ambassadors to protect interest of nation in other kingdoms. A king must protect own secrets from foreign countries' spices and make efforts to know strengths and weaknesses of other kings, especially enemies.

In foreign relations, only interests are permanent. Friends, neutrals and enemies may change with change in interest.

Cabinet has a Minister of Defence and a Foreign Minister, to deal with these matters. There may be a National Security Advisor.

Importance of army is stated by Shukracharya, "State, wealth, valour nothing is stable without army. All are friends of king with strong army and enemy of king with weak army."

(*Shukraniti, Part 4, Chapter 6, Shloka 4*)

Army power is of two types – (1) Own army and (2) Friends/Allies army. These may be conventional or modern. The army well-prepared for war is called '*Saar*' and an army unprepared for war is called '*Asaar*'. Tribal armies use own weapons. Therefore, it is called '*Svashastra*'. Army captured or defected from enemy side to king side is called '*Shatrubal*'. It is not reliable.

Wrestling, exercise, practice and rich diet are essential for physical fitness of an army. Pay them well and train them effectively.

Army mix ratio recommended by Shukracharya is given below:

(i)	Horse rider to infantry	1 : 4
(ii)	Horse rider to bullocks	5 : 1
(iii)	Horse rider to camels	8 : 1
(iv)	Camel to elephants	4 : 1
(v)	Elephants to chariots	2 : 1
(vi)	Chariot to cannon	1 : 2

(In place of chariots, we can use red tanks.)

Per one lakh gold coins annual revenue, a king must maintain one battalion consisting of the following:

Armed youth	100
Gunmen	300
Horses	80
Chariot	1
Firemen	2
Camels	10
Elephants	2
Bullock Carts	2

Accountants	6
Executives	3

Astra means weapon used by throw and *Shastra* is used by hands in fight. Don't send untrained army to war.

During war, pay incentive wages also to boost up morale of the army.

Follow ethics in *Dharmayuddha* but no ethics in *Kutyuddha* with strong enemy.

Army cantonment be located near but outside village. It should have own store. Army-man should not be allowed to enter village and deal with public without king's order.

In case of victory, army must be rewarded by enemy's wealth captured by the army. Defeated king be treated humanely.

(*Shukraniti 4.6*)

7. Friends and allies Army

Friends and allies Foreign policy of a king is based on increase friends and allies by retaining present friends and converting nuetrals into friends and also converting enemies into neutrals or friends. In foreign relations friends and enemies are not permanent but only interests are permanent . Diplomacy is based on interest of nation to be served by four fold strategy of saam,daam danda and bheda.

7.7 SUMMARY

We should be proud of our rich cultural heritage in Governance of a state with the help of 7 *Prakritis* – King, Minister, Treasury, Army, Nation, Friends/Allies and Fort. King is head of the body of a state. *Manu* was the first sovereign king of the universe. *Manusmriti* contains Divine Attributes Theory of a king/leader. He takes attributes and roles from 8 divines – *Sun*, *Moon*, *Indra*, *Air*, *Fire*, *Kubera*, *Yama* and *Varuna*. He takes attributes of Sea, Mountain, Earth and Bhagwan Vishnu also. Defects which makes a bad king are also described. Two epics (*Ramayana* and *Mahabharata*), *Kautilya Arthasastra* and *Shukraniti* are rich sources of knowledge of *Prakriti* of a state, need for king and his role of good governance. This ancient knowledge is still of contemporary relevance even in democracies and corporate governance.

7.8 KEYWORDS

King, Minister, Army, Fort, Nation, Treasury, *Amatya*, Friends/Allies, Public Governance Audit, Governance.

7.9 EXPECTED LEARNING OUTCOMES

Be a good king/leader/CEO. Cultivate good essential attributes and avoid defects. Understand roles and responsibilities for providing good governance in state or an organization/corporate entity.

7.10 SELF-TEST QUESTIONS

1. Describe Divine Attributes Theory of king/leader.
2. Describe Rama as role model of a king/leader as stated in *Valmiki Ramayana*.
3. Describe role model of Shri Krishna as Global Leader as described in *Vishnu Sahasranama*.
4. Describe Governance Norms described by Bhishma Pitamaha in *Shanti Parva* of *Mahabharata*.
5. Describe major elements of Kautilyan state.
6. Describe role played by Prime Minister in any one state – Ayodhya, Hastinapur or Magadh.
7. Briefly state land measurements used by *Amatya* (Revenue Minister).
8. Describe role of Treasury in a state as given by Chanakya.
9. Describe capital city, forts and Raj Bhavan in ancient India as described by Bhishma or Shukracharya.
10. Describe Army's place in a state as described by Shukracharya.
11. Describe substance of *Vidurniti*.
12. "No friends and enemies are permanent. Only interests are permanent in Diplomacy." Explain.
13. Select only one correct answer out of four options given in each Multiple Choice Question given here:

    (i) Divine Attribute Theory of king was given by:
        (a) Manu
        (b) Valmiki
        (c) Ved Vyasa
        (d) Chanakya

    (ii) Dandaniti is held by:
        (a) Police
        (b) Army
        (c) Judge
        (d) King

    (iii) Governance means and includes:
        (a) Yoga
        (b) *Kshema*
        (c) Fair distribution
        (d) All of the above

(iv) King is needed to:
   (a) Avoid anarchy
   (b) Create fear in pubic
   (c) Join hand with enemy's kings
   (d) None of the above

(v) Ancient India's role model king/leader was:
   (a) Shri Rama
   (b) Shri Krishna
   (c) King Prithu
   (d) All of the above

(vi) *Arthasastra*'s author was:
   (a) Kautilya
   (b) Sumantra
   (c) Valmiki
   (d) Ved Vyasa

(vii) *Vidurniti* is part of:
   (a) *Mahabharata*
   (b) *Ramayana*
   (c) *Manusmriti*
   (d) None of the above

(viii) Atheism is:
   (a) Quality of a king
   (b) Defect of a king
   (c) Duty of a king
   (d) None of the above

(ix) Chanakya's Kautliyan state has:
   (a) Self-control
   (b) Control through spies by king
   (c) No control
   (d) Both (a) and (b)

(x) A good state is one which has:
   (a) Good king
   (b) Rich treasury
   (c) Strong army
   (d) All of the above

Key to Multiple Choice Questions

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
(a)	(d)	(d)	(a)	(d)	(a)	(a)	(b)	(d)	(d)

7.11 APPENDIX

Tulsi Ramcharitmanas

Mukhiya much so cahiye khan pan koek

Palahi Poshiaisakalang Tulsisahitvivek

(*Ayodhyakand 315*)

"A leader should be like mouth who eats for balance nourishment of all limbs." This is essence of *Rajdharma*.

"Jasu Raj priyaprajadukhani, so nrpavasnarakadhikari" **(*Ayodhyakand 70.3*)**

"A king in whose state public is pained is bound to go to hell."

Ram's Preachings to Bharata on Governance

1. Respect and honour *Acharya*, *Guru*, queen, priest and chaplain.
2. Respect divines, ancestors, employees, saviours, *Vaidya* and intellectuals.
3. Respect defence experts – army lore, arm lore and economic experts.
4. Appoint knower of *Shastras*, self-controlled and good family background persons who understand King's symbolical indication as Ministers.
5. Take good advice and keep it secret.
6. Don't decide alone complex matters. Don't consult large groups of advisors.
7. *Amatyas* must be able to read minds of others.
8. Rise early. Don't sleep during day time. Manage time well.
9. Give priority to work giving maximum return.
10. Keep competent economic advisor to manage crisis.
11. Match job with individual.
12. Appropriate use of power of punishment. Award capital punishment to trailers.
13. Appoint competent army chief, respect him and keep him satisfied.
14. Your army is well-paid and contented.
15. Appointment intelligent, skilled, influential and expert communication natives as your Ambassadors.
16. Have effective spy network (18 points of enemy and 15 own points).
17. Develop agriculture and business well.
18. Honour good farmers and businessmen.
19. Women are safe and satisfied.

20. Develop forest and animals.
21. Give *darshan* to public well-dressed in forenoon.
22. Keep safe distance from public servants.
23. Ensure security of sensitive areas.
24. Keep surplus budget.
25. Check diversion of funds.
26. Strict control as corruption.
27. Artha not allowed to damage *Dharma*.
28. Govern as per *Veda* mandates.
29. Follow good precedents of ancestors.
30. Good meal be shared with all dependents.
31. Avoid 14 vices of a king.
32. Avoid 10 defects.
33. Use forts of 5 types.
34. Use *saam*, *daam*, *danda* and *bheda* strategies.
35. All 7 *prakritis* of state are strong.
36. Use diplomacy of 6 attributes.
37. Free from 5 divine and 3 human obstacles.
38. Identify 20 kings unfit for truce.
39. Entice defects of enemy to your side.
40. Know 12 *prakriti mandals* in friend, neutral and enemy.
41. Concentrate on paired diplomacy options like war and peace.
42. Decide after 3-4 Group of Minister's Advice.

(Valmiki Ramayana, Ayodhya, Sarga 100, Slokas 1-71)

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Chapter 8

PUBLIC ADMINISTRATION PERSPECTIVES FROM THE EPICS

Learning Outcome

1. To know the concept Role of Public Administration
2. To know about interdependence of Governance and Public Administration
3. To know about Head of the Departments – their Qualities, Roles and Responsibilities
4. To know the process of Recruitment, Selection, Appointment, Training and Development of Officers and Subordinate Staff
5. To know about Wages and Salary Administration
6. To know about Code of Conduct and Discipline
7. To know about Supervision by King/Leaders
8. To learn various do's and don'ts in Public Administration
9. To understand the value of Human Resources
10. To learn views of other experts like Bhishma and Shukracharya on Public Administration

Structure

8.1 Concept of Public Administration, its Roles and Responsibilities

8.2 Heads of the Departments – Job Analysis

8.3 Recruitment on Key Positions

8.4 Confidential Testing and Enquiry

8.5 Allocation of Duty

8.6 Wages and Salary Administration

8.7 Code of Conduct and Discipline
8.8 Some Do's and Don'ts for Public Servants and King
8.9 Value of Human Resource
8.10 Organizational Structure in *Mahabharata*
8.11 Ambassadors/Envoys
8.12 *Shukraniti* on Public Administration
8.13 Summary
8.14 Keywords
8.15 Expected Learning Outcomes
8.16 Self-test Questions
8.17 References and Further Readings

8.1 CONCEPT OF PUBLIC ADMINISTRATION, ITS ROLES AND RESPONSIBILITIES

Public administration is a tool in the hands of a king or other *Prakritis* of state to execute Government's policy decisions related to Governance. They are a team of officers and their subordinates put in different departments. Its role is to obey the orders of king/leader. Heads and officers may be consulted by the king/leader in participative decision-making. They come into direct contact of public and, therefore, know well ground level realities. They may advise king on matters to their Departments.

Public administration represents king/leader before public. Image of the state and king depends on their behaviour with public. As king is finally accountable to public for good governance, he must inspect/supervise work of public servants and exercise control on their activities.

Quality of public administration depends on king/leader's own commitment to good governance. It is a tool, the utility of which depends on intent, competence and courage of king/ leader. No public servant can be better than quality of king/leader. It is contingent on king's quality.

They create and maintain files and records. They make proposal desired by the king. A king may accept, reject or hold. He may desire personal discussion or written advice. He has to obey orders of the king. Public administration plays safe. It is normally not practice and reactive. It should not be inactive also. It must be honest or incorruptible and well-behaved.

8.2 HEADS OF THE DEPARTMENTS – JOB ANALYSIS

Chanakya has listed 26 Heads of the Departments of Government Departments in *Monograph 2* of *Arthasastra*. These are as follows:

1. Treasure
2. Director of Stores
3. Chief of Accounts and Audit

4. The Superintendent of Gold
5. The Director of Revenue
6. The Director of Trade
7. The Director of Forests
8. The Superintendent of Armory
9. Chief of Weight and Measures
10. The Collector of Customs
11. The Superintendent of Yarns
12. The Director of Agriculture
13. The Controller of Liquors
14. The Superior of Slaughter Houses
15. The Superintendent of Courtesans
16. The Controller of Shipping
17. The Superintendent of Cattle
18. The Superintendent of Horses
19. The Superintendent of Elephants
20. The Superintendent of Chariots
21. The Superintendent of Soldiers
22. The Commandment of Army
23. The Superintendent of Passports
24. The Superintendent of Pastures
25. The Chief of Spices
26. The City Superintendent

Departments 1 to 5 are related to Treasury and Economy. Departments 6, 9 and 10 are related to Trade. Departments 8 and 18 to 22 are related to Defence/Army. Departments 11, 12, 13, 14, 16, 17 and 24 are related to Economy. Department 25 is related to Foreign Affairs. Department 25 is related to Discipline and Security. Department 26 is related to City Mayor.

Most of these Heads of Departments are still in existence in Government. Some are outdated like the Superintendent of Chariots, Courtesans, etc. New Heads and new departments have also emerged with new needs and challenges like Revenue, Intelligence, Enforcement Directorate (ED), Information Technology, Transport, etc.

Chanakya has given detailed job analysis (Job Specification, Job Description and Job Evaluation) for each Head of the Department. Let us take one or two examples.

Director of Trade

(*Chapter 16, Section 34, Book 2, Arthasastra*)

The Director of Trade must have knowledge of the differences in the prices of commodities of high value and law value, demand for various goods, price elasticity of demand, consumer preference, place of origin, mode of arrival (transport), time for procurement, storage, etc.

If supply exceeds demand, he will procure from open market to maintain the market price (Price Support Policy). When target price is reached, he shall offer another price.

Trade in domestic products must be centralized at one place but trade in imported products to be decentralized. He shall protect consumer interest through globalization. He shall avoid profiteering that goes against public interest. He will not put restrictions on trade as to time or evil of glut in the market in commodities in high regular demand.

Traders shall sell royal goods (Public Distribution) in many places at fix price. Loss, if any, may be subsidized by the State. They must deposit goods and measures and submit accounts daily to the Director of Trade.

Traders Surcharge (Tax) will be equal to $1/16^{th}$ in measure by capacity $1/20^{th}$ part in measure by weight and $1/11^{th}$ part in measure by counting.

If profitable, the import free of tax may be allowed. Foreigners trading in domestic market may be granted legal immunity.

He shall ascertain price of domestic goods in foreign market and fix value of goods to be exported and value in bartert ran overseas. He should calculate profit after deducting expenses on duty, road cess, escort charges, picket and ferry dues, food and fodder, and share. It exports price is not remunerative, then he has to see non-financial benefits of export. No violation of foreign law to be allowed.

We can see how visionary was Acharya Chanakya.

Director of Revenue

(*Chapter 6, Section 24, Book 2, Arthasastra*)

He shall attend to the following sources of revenue:

1. **Fort:** Custom duties, fines, weights and measures, passports, yarn, liquor, slaughter, gambling, prostitution, City Superintendent, Temple Superintendent, ghee, oil, sugar, etc.
2. **Country:** Agri produce, tax, trade, port, pastures, road cess, ships, river, etc.
3. **Mines:** Gold, silver, diamond, pearls, salt, etc.
4. **Irrigation Work:** Flower gardens, fruit orchids, vegetables, etc.
5. **Forests:** Forest produce, elephants, beasts, deers, etc.
6. **Herds:** Cows, buffaloes, goats, sheep, donkeys, camels, horses, mules, etc.
7. **Trade Routes:** Land, water routes, etc.

He should know Heads of Income like price, share, surcharge, monopoly tax, fixed tax, value-based tax and penalties.

He should know Heads of Expenditure like charity, gift, royal palace, envoys, armory, warehouse, store etc.

Time should be recorded in year, month, fortnight and the day in account book of revenue and expenditure.

He should provide revenue estimate, accrued income, outstanding revenue and balance. Thus, budgeting and accrual concepts are contributions of Chanakya.

Income should be classified into three heads – current, outstanding and income from other sources. So, expenditure should be classified.

Thus, Revenue Administrator is responsible for:

1. Identification of Source of Revenue
2. Revenue Classification
3. Identification of Sources of Expenditure
4. Expenditure Classification
5. Accrual Accounting
6. Budget Preparation
7. Control over income and expenditure, and deficit control.

Thus, Chanakya had advanced knowledge of Accounting and Budgeting.

8.3 RECRUITMENT ON KEY POSITIONS

Chapter 7 of *Monograph 1* of *Kautilya Arthasastra* deals with recruitment on key positions by the king. Acharya Chanakya has quoted views on different authorities.

1. **Acharya Bhardwaj:** Four own old classmates of the king whose purity and efficiency is personally known to the king.
2. **Acharya Vishalaksha:** Promoted from trustworthy employee of confidence of the king.
3. **Acharya Parashar:** No classmate or no old employees, who knows secrets of the king, may make him puppet. Test competence and loyalty confidentially and then appoint only those who can defend the king in any crisis.
4. **Acharya Pishun:** Loyalty and devotion is key attribute for appointment on key positions.
5. **Acharya Konapadanta:** Heredity factor is key factor in such appointments.
6. **Acharya Vatvyadhi:** Heredity persons may challenge authority of the king. Unknown but duly tested should be appointed on key positions.
7. **Acharya Bahudantiputra (*Indra*):** Appoint persons on the basis of good background, intelligent, trustworthy, loyal/devoted and brave warrior.

Chanakya concurred with *Indra*'s view and added two factors – consider environment, place and time and the person. Never make a Department Head Minister/Prime Minister. India blundered by doing so in case of Gujarat and Manmohan Singh.

8.4 CONFIDENTIAL TESTING AND ENQUIRY

Persons to be appointed on key position should be subjected to confidential test with the help of Ministers and Priests:

1. A priest to be removed from his position. He may place a rift between king and key officers and seek opinion of the selected persons. If he keeps away from the rift, he is fit for appointment.
2. An army commander to be removed from his post. He should try to bribe the officer to revolt against the king. All officers are ready to revolt; this is projected to the person selected. If he does not join revolt, he is fit.
3. A spy woman visits king's palace and spreads rumour that the queen has fallen in love with newly appointed officer. She offers to arrange secret meeting with queen at a secret place with big bribe offer. If the officer rejects this proposal, he is fit.
4. A lower officer dishonoured newly appointed one. A person already dishonoured is sent to him. He remarks, "The king is very bad. We should kill him and get someone in his place. All officers have agreed. You also join." If he rejects, he is fit.

Chanakya recommends fourfold Confidential Test – Religious, Monetary, Sexual and Audit. King and Queen be not involved in such tests.

8.5 ALLOCATION OF DUTY

After recruitment and confidential test, the officers be allocated duty as follows:

1. Secular officers be appointed as judges.
2. Non-corrupt be appointed revenue officers and treasures.
3. Sexually pure be appointed at Royal Palace of Queen.
4. Last test qualified fearless persons be appointed in Security Duty.

Those who qualify all the four tests are fit to be Ministers. Those who fail in all the four tests may be appointed as Officers at Mines, Forest, Elephant, etc.

Thus, the key officers to be appointed on the basis of qualifications, confidential tests and efficiency.

The king must verify place of birth, residence, nationality, economic status through truthful persons, verify qualifications, knowledge and experience from his old classmates. Put him on the job test for testing his intellect, memory and cleverness. Test communication skill in personal meeting. Test, enthusiasm, power, amiability through stress and devotion through actual transaction/behaviour. Neighbours may also be asked to verify his conduct, health, activeness, etc. The king himself should test soft speech, no envy and discipline by direct personal observation.

8.6 WAGES AND SALARY ADMINISTRATION

Wages and salaries of Public servants may be fixed on the basis of the following principles (*Chapter 3*, *Section 91*, *Book 5*, *Arthasastra*):

1. Capacity to pay – 25% of the revenue.
2. As per work required – Work to be completed on time – piece wage/task-based.
3. As per need physical needs – food, cloth, shelter (minimum need), spiritual health and mental health (living wages, dignified living, etc.).

			Panas
Category A	–	Prince, Minister, Chaplain, Army Chief, Yuvraj, Queen	48000
Category B	–	Heads of Departments	24000
Category C	–	Officers and Supervisors	12000
Category D	–	Divisional/Sectional Heads	8000
Category E	–	Superintendents	4000
Category F	–	Subordinate and Technical Staff	2000
Category G	–	Drivers and Other Assistants	1000
Category H	–	Foot Soldiers, Clerks and Accountants	500
Category I	–	Artisans and Artists	120
Category J	–	Servants, Attendants, Labour and Foreman	60

Minimum-maximum salary wages difference is 60 to 48000 Panas.

Special Provisions

- Teachers based on merit – 500 to 1000 Panas.
- Incidental Charges to Ambassadors – 10 Panas per yojana (4 miles).
- Spies and King's Charioteers – 1000 Panas.
- Rural Spies and Assistants – 500 Panas.
- Mobile Spies – 250 Panas.
- Death on duty – widow and dependents will get family pension.
- Salary subject to honesty and integrity of public servants.

8.7 CODE OF CONDUCT AND DISCIPLINE

One is fit to be a public servant only when the following conditions are fulfilled:

1. Conversant with public affairs (worldly behaviour quality)
2. Endowed with self-control (spiritual quality)
3. Endowed with excellence of knowledge and skill (material quality).

If there is some deficit, then he has to take training. If he is lacking conditions 1 or 2 given above, then he is unfit to be a public servant. Thus, Chanakya advocated spiritual quotient, the most modern concept in Human Resource Management in Public Administration.

He has to pass the test in *Dandaniti*, intelligence and self-control personally conducted by the king.

When selected, he may stipulate:

(a) King may consult only distinguished public servants.

(b) King should grant him immunity against powerful persons.

(c) King should not punish him at the instance of his subordinates, peers and seniors.

(d) King shall not harm him personally, livelihood and privacy.

(e) King shall not punish him under influence of passion or anger through symbolic communication.

This is called constitutional protection to a Public Servant.

A public servant must comply with the following code of conduct:

1. Avoid bellicose talk or false statements, or talk based on mere hearsay.
2. Avoid unreliable baseless statements.
3. Avoid loud laughter, breaking wind and spitting with sound.
4. Avoid secret talk with others.
5. Avoid passing violent remarks.
6. Never dress like a king.
7. Never seek special gift or favour publicly.
8. Never contact one's eye or lip, knitting or eyebrows.
9. Avoid opposing powerful person.
10. Avoid joining association for common objective (No trade unionism).
11. Avoid company of women, persons frequently meeting women, foreign envoys, persons against king, persons dishonoured by king, and harmful persons.
12. He should promptly state what is in the interest of king, what is his self-interest, interest of others, and what is in material and spiritual interest of public.
13. On asking, he should say what is most agreeable and beneficial. Avoid telling agreeable but harmful. Tell disagreeable but beneficial for king only when king is willing to listen. This should be stated in camera with prior permission of the king.
14. Avoid reference to enemies of king or against king.
15. Avoid entering in verbal duels with any hot communicator.
16. Serving king is like serving fire or cobra. Protect yourself from his anger.
17. When reporting progress of assigned work, specify the nature of work, income and expenditure.
18. Avoid false praise of an addicted king.

19. Observe gestures of king and act accordingly. For example, when the king ignores an officer, avoid meeting him. When the king welcomes him, wait for his signal to talk.

8.8 SOME DO'S AND DON'TS FOR PUBLIC SERVANTS AND KING

1. Avoid very talkative or disobedient servant.
2. Test loyalty and efficiency of public servant by assigning him work.
3. Employees' strength is his efficiency to serve.
4. Employ good people in higher service.
5. Match person with work.
6. Avoid bad boss as your employer.
7. Avoid unethical income. It will spoil your children. Control your desires and greed.
8. Sources of destruction are extravagance, quarrel with strong, womanizing and haste in work/decisions.
9. Never criticize seniors.
10. Maintain reasonable distance between king and public servants. Too close proximity is bad for both.
11. Live where Good Governance is there. Otherwise change place and boss both. Avoid serving a bad king.
12. Take care of health.

8.9 VALUE OF HUMAN RESOURCE

Chanakya considers public administration as valuable human resource. He says, best person is invaluable. There is no gem equal to best woman. Such gems are scarce. Procure and retain them carefully. He is very close to modern concept of valuation of Human Resources. He further advises a subordinate to give credit to leader or king for success and leader to give due credit to subordinates. Orders of king must be honoured with prompt execution.

8.10 ORGANIZATIONAL STRUCTURE IN *MAHABHARATA*

In *Shanti Parva* of *Mahabharata*, Bhishma Pitamah has laid down organizational structure for Public Administration as follows:

1. At Village level – Village Chief
2. Group of 10 Villages – Group Chief
3. Group of 1000 Villages (10 Groups of 10 Villages) – Large Group Chief
4. Group of 1000 Villages (10 Purge Groups of 100 Villages each) – One Super Chief

In modern parlance it is Village *Sarpancha*/*Patwari*, *Amin*, *Tehsildar* and Collector regarding revenue administration. Regarding police, it can be Police Chowki Head, (Head/Constable), Inspector, *Thanedar*, Circle Inspector and SP, DIG, IG, etc.

Village level affairs revenue (crime) report will be sent by the Village Chief to 10 Village Chiefs. 10 Village Group Chiefs will send report to Chief of 100 village groups. Each 100 village group chiefs will send report to 1000 village chiefs. Then chief of 1000 villages will prepare a consolidated report for presentation to the king.

Village Chief should retain output of village in his control. He should deduct own salary from it as permissible and pay tax to Chief of 10 villages. Chief of 10 villages will keep allowable part for own maintenance and pay tax to Chief of 100 villages. The chief of 100 villages must get tax equal to output of one village. He is based at a town which is administrated by a group of administrators. One person is not given exclusive power in order to save public from harassment. Chief of 1000 villages is based in the city. He must get revenue of one city. He has police and administrative staff under his control. Revenue Minister Controls Chief must be ethical and very active. He should personally go to inspect at village level and town level. He should have spies also under his control to get feedback on behaviour of Village Chief with village public. He should protect them against exploitation and harassment by public servants.

The above structure devised by Bhishma is still in practice.

8.11 AMBASSADORS/ENVOYS

One who fulfills the qualities of a Minister is appointed as Ambassador to represent the king in a foreign country. He works under the control and supervision of Minister for External Affairs.

Main functions of an Ambassador are:

1. To communicate message from own king to a foreign king.
2. To guard terms of treaty.
3. To uphold own king's Majesty.
4. To safeguard interest of own nation in a foreign country.
5. To find allies, seducibles and create division in rival camp.
6. To liaise with own king's spies, army and businessmen of own country. Protect own citizens in foreign land.
7. To collect secret information useful for own king.
8. To show valour, when needed.
9. To assist hostages to escape.
10. To do counter espionage.

An ambassador gets legal immunity in foreign state. He is his king's voice only. He cannot be awarded capital punishment. He can be asked to leave the country by a foreign king.

There can be separate trade representative also appointed by the Ministry of External Affairs.

8.12 *SHUKRANITI* ON PUBLIC ADMINISTRATION

Demon *Guru* Shukracharya is an authority on *Dandaniti*. He says that competent officers be appointed as Head of the Department of Elephants, Horses, Infantry, Animals, Birds, God, Silver, Precious Stones, Clothes, Jewellery, Gardens and Palaces. Six courageous heads to be appointed as Head of Works, Head of Village, Collector of Revenue, Record Officer, Income Tax Officer and Gatekeepers.

Tapasvis, dancers, *shastris*, *vaidyas*, *tantriks* and *karmakandis* to be honoured by donation and maintained by salary from the Treasury. If they are angry, then the king's survival will become difficult.

For complex tasks, team or task force to be constituted of experts who should be rewarded well.

Only a person with following qualities be appointed as Judge:

1. Expert knowledge of Law, Ethics and Customs.
2. Self-controlled
3. Independent and impartial
4. Active
5. Soft-spoken
6. Gentle person

A Head of the Department should not make show of his importance before the king. Various heads should not envy each other. Their unity is a must for prosperity of kingdom. A head should never inform the king about another head. The king should not hear such submission. Shukracharya warns against organizational politics and king's taking interest in it. He further warns that a head who does not understand what is and what is not in the interest of king, he is concealed enemy.

(*Shukraniti Chapter 2.3*)

Lower level staff in Government Departments must have the following qualities:

1. Loyalty
2. Non-corrupt and ethical
3. Good health
4. Ready and willing to serve
5. Obedient
6. Multi-tasker (Never argue that it is not my duty or work is loaw or high.)

Persons with the following qualities to be appointed as Spies:

1. Knows enemies, public servants and public well.
2. Listener of facts.
3. Communicator of facts correctly to king.

According to Shukracharya, a public servant must be truthful and people well-being-oriented. Obedient with royal etiquettes to the king. Violent and untruthful persons are not fit for public servant position.

(*Shukraniti Chapter 2.4*)

8.13 SUMMARY

Public administration is tool of Governance. 7 Prakritis and Public administration are interdependent. Its quality depends on quality of king/leader. Its role is to obey king, propose and execute. It may advise king in participative decision-making. It creates, maintains and presents record. Chanakya has identified 26 Heads of Department. Most of them still exist. He has given detailed Job Analysis for each post. He has given rich material on recruitment, selection, appointment, training, wages and salary, code of conduct and discipline, and do's and don'ts for public servants. He is a visionary when he talks about valuation of human resources.

Bhishma in *Shanti Parva* of *Mahabharata* has given organizational structure of Public Administration which is still in practice. Demon Guru Shukracharya has also given useful description of Public Administration – Heads and Subordinates, their qualities and code of conduct in *Book 2* of *Shukraniti*. It is of great contemporary relevance.

8.14 KEYWORDS

Heads, Officers/Supervisors, Lower Staff, Recruitment, Confidential Testing, Selection, Allocation of Duties, Code of Conduct and Discipline, Qualities of Public Servants, Ambassador, Value of Human Resources.

8.15 EXPECTED LEARNING OUTCOMES

To be good Public Servant/Public Administrator, Ambassador, Head of the Department, etc.

8.16 SELF-TEST QUESTIONS

1. Explain the concept, qualities, roles and responsibilities of Public Administration.
2. Describe Departmentation/Heads of the Department identified by Kautilya in his book *Arthasastra*.
3. Describe Director of Trade or Director of Revenue as per Kautilya *Arthasastra*.
4. Describe sources of Revenue of a State.
5. Briefly explain the views of Kautilya and other experts on Recruitment of Key Public Heads.
6. Write short notes on:
   (a) Confidential Testing and Allocation of Duties
   (b) Principles of wages and salary fixation given by Chanakya
   (c) Constitutional Protection to public servants
   (d) Value of Human Resource

7. Describe Code of Conduct and Discipline for a Public Servants as per Chanakya and Shukracharya.
8. Describe organizational structure of Public Administration given by Bhishma in *Shanti Parva* of *Mahabharata*.
9. What are the qualities and functions of Ambassadors?
10. List some do's and don'ts for public servants.
11. Select only one correct answer out of four choices given in each of the following Multiple Choice Questions:
    (i) Public Administration and *Prakritis* of a state are:
        (a) Conflicting
        (b) Integrated
        (c) Interdependent
        (d) Duplicating
    (ii) Director of Trade deals with:
        (a) Domestic Trade
        (b) Foreign Trade
        (c) King's Trade
        (d) All of the above
    (iii) Sources of Revenue are:
        (a) 7
        (b) 5
        (c) 1
        (d) 2
    (iv) Confidential Tests are related to:
        (a) Religion
        (b) Money
        (c) Sex
        (d) All of the above
    (v) Those who pass all three confidential tests is fit for appointment as:
        (a) King
        (b) Minister
        (c) Head
        (d) None of the above
    (vi) Those who fail in all three confidential tests is:
        (a) Unfit as Public Servant
        (b) Fit for Subordinate

(c) Fit for Head of Animals, Mines, Forests, etc.

(d) None of the above

(vii) Wages and salary can be based on principle:

(a) Capacity to pay

(b) As per the need

(c) As per the work

(d) Any of the above

(viii) What amounts to misconduct of Public Servants?

(a) Advising King

(b) Obeying King

(c) Laughing loudly in the presence of King

(d) None of the above

(ix) Value of Human Resource concept was given by:

(a) Chanakya

(b) Bhishma

(c) Shukracharya

(d) Ved Vyasa

(x) Shukracharya was Guru of:

(a) Demons

(b) Divines

(c) *Rishis*

(d) Humans

Key to Multiple Choice Questions

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
(c)	(d)	(a)	(d)	(b)	(c)	(d)	(c)	(a)	(a)

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4. Khandelwal, N.M. and Pratapsinh Chauhan, *Managerial Analysis of Shukraniti*, Spotwrite, 2022.

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PRACTICAL EXERCISES

1. Visit a *Gurukul*/*Ashram* and have own experience (*anubhooti*) of Indian ancient knowledge system.
2. *Muktchintan* (brainstorming) on the topic 'Life Worldview of Existence'.
3. Practice of meditation on *Panchkoshas* and *Chakras*.
4. *Muktchintan* (brainstorming) on the perspectives from the epics and the real-life scenario of their applicability in the policies and schemes of the Government of India like Foreign Policy, Defence Policy, Innovation and Startup Policy, Global Initiatives like One Sun One World One Grid: India's Initiative, Vaccine Diplomacy and International Yoga Day.

1. Visit to a *Gurukul* of Vedic Education

The purpose is to have experience of Indian Ancient Knowledge System. Before or during this visit, students are advised to study the following readings on *Gurkul* System of Education:

1. Khandelwal, N.M., *Indian Ethos and Values for Managers*, Third Edition 2019, Chapter 10, Himalaya Publications (P) Ltd., Mumbai,
2. Apply Google search on this topic 'Gurukul System'.
3. Also visit http//www.anitgurukul.org; leverageedu.com.13angle.com; collegemaker.com blogs; linkedin.com7pluse; byjus.com.
4. Also see videos www.vedicconcept.com.
5. For *Gurukul* and Modern Education – Comparative Study, visit www.researchgate.net.
6. Prepare a list of features of *Gurukul* System of Education and learnings of life values and ethics at a *Gurukul*. How modern education can be revitalized by imbibing *Gurukul* Values?

2. *Muktchintan* (Brainstorming) on the Topic 'Life Worldview of Existence' (Illustrative only)

1. What is life?
2. What is world?
3. What is existence?
4. Five Philosophies' Questions –
   (i) What am I?
   (ii) From where I have come?
   (iii) Where am I?

(iv) What is purpose of my life?

(v) What is my final destination?

3. Practice of Meditation on *Panchkoshas*

Study from the following websites:

1. www.artgiving.org>uk-en
2. www.theyogicjournal.co *(Panchkosha*)
3. www.tnpesu.org>pdf>DE
4. www.divineworks.co.uk>Panchkosha
5. www.inflibnet.ac.in>1
6. www.researchgate.net>3
7. www.indigenouspsych.org

Do practice of meditation on *Panchkosha*. State its benefits experienced by you (e.g., better concentration, clarity of mind and effective communication, mental peace, better creativity and self-awareness).

4. Practice of Meditation on *Chakras*

Use the following videos available on website (Meditation on *Chakras* (YouTube):

1. 10 minutes' *Chakra* Balance guided.
2. 10 minutes' *Chakra* Meditation for clearing and cleansing all 7 *Chakras*.
3. 15 minutes' *Chakra* Balance Guided Meditation.
4. Seven *Chakra* Guided Meditation Balance Aura cleaning.
5. Powerful Meditation on 7 *Chakras* – Balance and heal your energy centres by Guru Shri Shri Ravi Shankar.
6. Quick 7 *Chakra* cleansing 3 minutes each – *Chakra*/seed mantra chanting meditation/root to crown.
7. 7 *Chakra* Guided Sleep Meditation – Think right.
8. How to meditate at home? *Chakra* Healing Meditation/S01E05/Meditation for Positive Energy.

See, listen, practice and experience change.

You may visit the following websites:

1. www.artofliving.org.in
2. www.wikihow.in
3. www.arihantayoga.org
4. www.bettersleep.com
5. www.greatist.com
6. www.hyride.com>Chakra
7. www.mindbodygreen.com

8. www.innerpeacefellowship.org
9. www.chopra.com> articles >7 Chakra meditation
10. www.purewow.com
11. www.hindustantimes.com
12. www.mindworks.org> blog >Chakra meditation
13. www.astroyogi.com>7 Chakra
14. www.theyoganomads.com
15. www.kellbmaize.com
16. www.insighttimer.com> browse
17. www.avaana.com.an>blog>Chakra
18. www.amazon.in
19. www.blog.mindvalley.com>Chakra
20. www.fitsri.com>Chakra
21. www.onlymyhealth.com>Chakra
22. www.domeditation.com
23. www.meditativemind.org>
24. www.ro.co.health-guide>Chakra
25. www.yogapedia.com>Chakra
26. www.cosmiccuts.com>blogs
27. www.bemytravelmuse.co
28. www.ananda.org>video
29. www.zenfulspirit.com>2019
30. www.lovejoyandwonder.com
31. www.yahoo.com>lifestyle
32. www.healthline.com>heal
33. www.reikimasteronline.com

5. *Muktchintan* (Brainstorming) on the following topics

1. Application of *Ramayana* epic perspectives in real contemporary life.
2. Application of *Mahabharata* epic perspectives in real contemporary life.

In Government policies and programmes/schemes like foreign policy, defence policy, startup and innovation, global initiatives like *Vasudhaiva Kutumbakam*; One Earth, One Family and One World; *Sabka Saath, Sabka Vikas, Sabka Vishwas, Sabka Praya*s; One Sun, One World Grid; Vaccine Diplomacy, International Yoga Day, Ayurveda Initiative, G-20 Resolutions and Bharat Heritage booklet distributed to guests at G-20 Convention.

6. *Ekatma Bhava*

You may visit Haryana Raj Bhawan website to read article on *Ekatma Bhav* Philosophy of integral humanism.

Also read '*Ekatm Bhava*' a Global Centre for Oneness publication.

Also read the book "How to Attain Peace?" by Prof. N.M. Khandelwal and Prof. Pratapsinh Chauhan, published by Adhyyan Books and available on Amazon online.

Learning Outcomes

Gurukul values in student's life – equality, simplicity, love for labour, self-discipline, celibacy, etc.

Ekatma Bhava in real life – simple living and high thinking, *swadeshi*, inclusiveness, *antodaya*, etc.

High energy and consciousness, peace, harmony, happiness in all levels of existence – self, family, society, nature and total existence.

Ramayana and *Mahabharata* learning put into practical life.

Evaluation and Measurement

Outcome	Weight	Method
1. Knowledge	30%	What is type question? Written and Oral, MCQs and Quiz.
2. Understanding	40%	Differentiate Type Questions, Impact-related Questions and Debates.
3. Application	30%	Practical work, Experience and Feedback. Change in Life.

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ABOUT THE BOOK

The present book is the first book based on the syllabus prescribed by the University Grants Commission on IKS. The book incorporated two-decade long research efforts by the authors in this field. The book is based on needs the of learners. Easy to understand English is used. Each chapter follows the following sequence:-

- Learning objectives
- Structure of the chapter
- Text and cases
- Summary
- Keywords
- Expected Learning outcome
- Self-Test Questions to test Knowledge Understanding Analysis and Application
- Multiple Choice Questions with answer key.
- Further readings

Important matter which needs special attention is given as Appendix at the end of the Chapter.

The book is divided into 4 units as per the syllabus. Each unit consists of two chapers. This book contains total 8 chapters. Size and content are kept limited to suit the capacity añd time available with an average learner.

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